

# THE MEDICAL JOURNAL OF AUSTRALIA

VOL. II.—37TH YEAR.

SYDNEY, SATURDAY, DECEMBER 30, 1950.

No. 27.

## Table of Contents.

[The Whole of the Literary Matter in THE MEDICAL JOURNAL OF AUSTRALIA is Copyright.]

ORIGINAL ARTICLES—	Page.	BRITISH MEDICAL ASSOCIATION NEWS—	Page.
The Sir Richard Stawell Oration—Farewell to Academe, by Sir John Medley, D.C.L., M.A. . . . .	949	Scientific . . . . .	972
Urological Problems in General Practice, by James S. Peters, M.S., F.R.C.S., F.R.A.C.S. . . . .	954	<b>CORRESPONDENCE—</b>	
Treatment of Gastro-Enteritis in Infants with "Chloromycetin", by D. C. Flison and E. Singer . . . . .	957	A Disclaimer . . . . .	972
Sarcoidosis: Diagnosis and Management, by Bruce Robinson . . . . .	959	International Congress on Blood Transfusion . . . . .	973
The Syndrome of Cyclic Attacks of Allergy in Childhood, by H. G. Breidahl . . . . .	961	<b>POST-GRADUATE WORK—</b>	
<b>REVIEWS—</b>		Melbourne Permanent Post-Graduate Committee . . . . .	973
Chambers's Encyclopedia . . . . .	965	<b>DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA . . . . .</b>	975
Infant Nutrition . . . . .	966	<b>COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION—</b>	
<b>BOOKS RECEIVED . . . . .</b>	966	Translations . . . . .	976
<b>LEADING ARTICLES—</b>		<b>OBITUARY—</b>	
The Retirement of Professor Peter MacCallum . . . . .	967	Effie Stilwell . . . . .	976
<b>CURRENT COMMENT—</b>		Arthur Norman McArthur . . . . .	976
The Silicones in Medicine . . . . .	968	<b>NOMINATIONS AND ELECTIONS . . . . .</b>	976
The Mode of Action of Salicylate . . . . .	969	<b>DIARY FOR THE MONTH . . . . .</b>	976
<b>ABSTRACTS FROM MEDICAL LITERATURE—</b>		<b>MEDICAL APPOINTMENTS: IMPORTANT NOTICE . . . . .</b>	976
Dermatology . . . . .	970	<b>EDITORIAL NOTICES . . . . .</b>	976
Urology . . . . .	971		

## The Sir Richard Stawell Oration.<sup>1</sup>

FAREWELL TO ACADEME.

By SIR JOHN MEDLEY, D.C.L., M.A.,  
Melbourne.

THERE must come a time in the history of all commemorative orations when the ranks of those who knew the Master grow thinner, and recourse must be had to others to whom his work and influence can come at second hand only. On the last three of these occasions three of Richard Stawell's friends, who were in two cases his pupils also, have paid tributes to him—tributes eloquent, moving and based upon their remembrance of him as teacher, colleague and companion. In listening to them Dr. Rowden White, the founder of this Oration, must have felt that the true objectives of his generosity were being most amply realized. I cannot claim to rival them. As far as I know, I met Richard Stawell only once—some thirty years ago when I first arrived in Australia. My only connexion with him is that I am now the fourth president of the fishing club of which he was co-founder and first president—the intervening members of the succession being the late Sir Thomas Bavin and Sir John Latham—and I may be pardoned if I take a not unreasonable pride in my distinguished company. His photograph hangs upon the walls of our club-house—a face wise, kindly and of a distinction which defies exact analysis. I have spoken with some

of those whom he taught to cast a fly over the elusive and unpredictable trout and with many of my friends whom he guided in their early inquiries into those even more elusive and unpredictable facets of human beings with which the physician is constantly confronted. They all agree that those who had to do with Richard Stawell were dealing with a man who possessed a combination of qualities which entitled him to the adjective "great". He was a great man, not just because his technical competence was superb—that goes without saying—not just because he was gifted with a store of wisdom which could open up windows of illumination upon the field of his chosen art, but above all because he was in himself a first-rate human being—a humane man in the widest and most beautiful sense of that often misused word, and a character—an unforgettable character—who aroused the respect and affection of all who really knew him. Such men are rare at any time, and I am honoured by this invitation to commemorate his life and work in Melbourne.

How can I best fulfil my task? I think by trying to sum up some of the leading ideas about universities which have gradually impressed themselves upon my mind over the last thirteen years—a period in which most of my waking and an undue proportion of my sleeping thoughts have been concentrated upon the business of being a Vice-Chancellor. If you think that I ought to have dredged up from my inner consciousness some subject more directly akin to the medical profession, my answer is that I have exhausted my stock of those airy generalities which the layman and the professional can reasonably bandy between them, that, at any rate as things are, universities are of very profound and direct interest to medical men, and that I can most fitly do honour to Richard Stawell by talking upon a theme about which I ought to know more than most

<sup>1</sup> Delivered at a meeting of the Victorian Branch of the British Medical Association on October 4, 1950.

people, whatever my shortcomings. In any case I crave your indulgence if you think I need it.

I have lived for thirteen years in the land of Academe, and very rewarding to me those years have been. I am now on the verge of leaving it with many backward glances at the good days I have passed and the good friends I have made. If you ask me what is the leading characteristic of that land, I should reply that in it a higher percentage of people than in any other occupation are doing their work because they like it and because they believe in its importance. Nobody goes into university teaching because of the social status it confers; nobody, heaven knows, goes into it for the sake of either cash or credit. The inhabitants of Academe, with very few exceptions, believe in what they are doing and are not often lured into doing anything else, though the temptations presented to them nowadays are more frequent and seductive than the outside world realizes. They grumble, of course, at the routine which hampers their reading and research, at the elephantiasis which has afflicted all faculties of late years, and at the purblind stupidity verging on paranoia which is so often exhibited by their administrators. But—and I speak now of Melbourne in particular—no man could have had more utterly whole-hearted cooperation from colleagues than it has been my privilege to enjoy during my time as Vice-Chancellor—cooperation not only with myself but, what is just as important, with each other. Nothing has pleased me more than to be told—as I have often been told both here and abroad—that Melbourne is a contented university despite all the difficulties which the times impose upon us. I believe that the creation of the atmosphere and the circumstances in which such content can flourish is the most important single task of any man to whom is committed the charge of a university.

This may seem to you a very lowly—or perhaps an unduly immodest—note on which to open a series of, I fear, random reflections upon anything so esoteric as a university. But I have struck it of set purpose. Too much of the talking and writing that goes on about us and our functions—I speak of the inhabitants of Academe—is couched in high-flown generalities, which sound admirable until you begin to think about them—which most people never do. Too often the plain fact is ignored that whatever may be the underlying purpose or the social import of our calling, a university is just as good or as bad as the calibre of the people who teach in it and the extent to which they can work together to one common end—whatever it is. Fifty first-rate men working in watertight departments (assuming that any university was clever or rich enough to have so many) might produce work which would change the course of history, but they would not be members of as good a university as would be produced by fifty not quite first-rate men working in departments which encouraged constant personal and professional cross-traffic. If that sounds like blasphemy to the academic purist, let me proceed to justify it, if I can.

The primary objective of a university—in my view its only objective in the proper sense of that word—is the provision of fundamental training for the learned professions. That has always been its function since universities started, and though no man can prophesy in days like these, I hope we shall never see the professions themselves assuming responsibility for the whole of their training and the university reduced to the status of an American college. There is of course nothing immutable about the academic machinery necessary for the general purpose, or about the particular professions for which university training is considered necessary. These will change with changing times and changing social demands, which a university can ignore only at its peril, as Oxford and Cambridge discovered in the eighteenth century. There may well be radical machinery changes looming over us in the near future. The lines of demarcation between schools, university and the proper educational activities of the professions themselves are not and should not be absolute, and as the total body of knowledge increases it may well happen—indeed it is gradually happening—that there will take place a constant redistribution of roles

between them. I have no intention of embarking upon detail. I merely wish to emphasize, as a preliminary to what else I have to say, that I believe that the basic function of a university is professional training, that this function is so bound up with the whole idea of a university as to be immutable, but that the methods and machinery for its fulfilment can and should display a great deal more variation than some of my more conservative friends and colleagues in the university and even in the medical profession would care to believe.

Now as soon as people started thinking about the function of universities, which mercifully did not begin to happen to any extent until they had actually been performing that function for several hundred years, the voice of the heretic was heard in the land—the heretic in this instance being one who confuses the basic objective with its by-products. In an age which is magnificently certain about its aims and ideals there is no market for controversy of this kind. But the twentieth century, which has, as we all know to our cost, staggered from one uncertainty to another with complete disaster emerging ever more menacingly from the background, has brought the theorist to his own—which is one reason why a conscientious vice-chancellor can find time to do little else but strive to keep up with what is being said and thought in a hundred places about the job he is trying to do. There has recently been appearing in that admirable paper *The Listener*—the weekly journal of the British Broadcasting Commission—a series of articles by distinguished academic figures with the general title of "The Idea of a University". Some of you may have seen them, and I do not propose to traverse them in detail. The main impression they gave me was that we are as far off as ever from any real reconciliation between science and the humanities so far as the theorists are concerned. The scientists are complacently certain about their university objectives—I speak of this particular series of articles and not of scientists in general. The business of a university is to satisfy the community demand for more and better scientists, and if they can pick up a little general education on the side—well, it will not do them any particular harm. The exponents of the humanities, on the other hand, are suspended miserably between two worlds. They look back nostalgically to the days when scholarship and culture were the hallmark of a graduate, whatever his faculty—in my view an unreal idea. They look forward to an increasing burden of so-called Arts subjects, which many of them regard as masqueraders on temporary loan from Science, and they regard with undisguised apprehension the accumulating demands of professional training, which in their view bid fair to overwhelm the real values for which universities stand. What in my view those real values are will emerge before I finish. For the moment I merely record my impression that in this series of articles the humanities seem to be fighting a dispirited rearguard action, backed by no very definite creed, against opponents who know very clearly what they want.

And so for my own satisfaction and, I hope, perhaps, for yours too, I want to investigate some of the factors that have contributed to this blurring of the old simple picture of what a university is really for. I said earlier that the modern theorist tended to confuse objective with by-product, and I propose to consider the three by-products which in my view are mainly responsible for the present chaotic condition of academic theory. The first is best approached by a discussion of the common criticism that a modern university is nothing but a technical school. I shall deal with the second by taking my courage in both hands and venturing some comments upon that word of power "research". The third is more general, and I shall leave further definition until I reach it.

I am frequently assailed by members of the learned professions—yours amongst others—with the remark that our contemporary graduates, though they may have acquired in the course of their education the elementary tools of their trade, are woefully lacking compared with preceding generations in the qualities which differentiate a true professional from a mere practitioner. With all respect to present company, I take leave to doubt this

statement. We all tend to regard the present as a temporary, though unfortunate, depression between the giants of the past and the supermen of the future, and I can see no grounds for pessimism in the calibre of our graduates of the last few years. It is true that our medical course—to take the most appropriate example—is from its beginning to its end a pretty technical affair, and that the demands constantly imposed by advances in knowledge make it difficult to envisage any real relief, short of a lengthening of the whole course on a scale which is out of the question. But were things ever really any different? Classes, of course, were smaller in the old days, and more intimate contact with teachers was possible for a higher percentage of students. But I suspect examination pressures loomed as menacingly to you as they do to your successors, and I have every reason to be proud of the way in which those who now occupy the seats of the great men who taught you do manage to overcome the handicaps imposed upon them by numbers. Things would of course be better if we could limit first-year entrants to 100 and keep our staff at its existing level. But one learns, as a vice-chancellor, that it is wise to restrict oneself to actualities, and I can see no prospect of any early reduction in student numbers or, from the community point of view, of any justification for desiring it.

I shall be told that in the old days, despite the pressures of the course, there was much more leisure—leisure to rub shoulders with students in other faculties, leisure to read and think about those specifically cultural subjects love of which should distinguish the graduate from his less fortunate fellows. I wonder. Judging from some of my informants, the medical student of yore had never heard of what I believe is known as “the pub over the road” and spent his ample spare time in writing blameless Latin verses for *Speculum*. I admit freely that real leisure nowadays is hard to come by—probably harder than it used to be, though I am not dogmatic on that point. But I believe that on the whole such leisure as there is used better than it used to be. The biggest problem confronting those whose business it is to teach the way of leading the good life as complementary to the technical life is that of arousing an appetite for its components which are, of course, many and various, ranging from the highest flights of music and poetry to the more lowly levels of gastronomy and gardening. That is basically the business of the schools, which are dealing with the age group in which the relevant susceptibilities can first be aroused. It is quite illegitimate to demand of a university that it should create such appetites in addition to satisfying them, and a great deal of the criticism which has been levelled at us is totally unjustified on that ground. On the whole, our educational system has not been notably successful in the past in this particular sphere, owing amongst other things to the pressures exerted by public examinations and university requirements on the whole curriculum. But things are improving every year, not merely because people are beginning to take a more rational view about examinations, but because of the aids, undreamt of by preceding generations, which are now at the disposal of the student. The more I learn about the techniques and the possibilities of good broadcasting, the more convinced I become—despite certain undesirable manifestations—that it is a tool of unique power for good. If cynics in the audience doubt me, I point to the fact that in the course of less than a generation it has brought it about that a medical student is at least as likely to enjoy a Beethoven symphony as his fellow in the Faculty of Arts. Was this so in your day? I doubt it. Consider also the exceedingly important developments in the field of visual aids—one which our university has, I am proud to say, pioneered—and lastly, such contemporary phenomena as the “Penguin” and “Pelican” series of cheap books. The elements of culture—if you must call it that—are today accessible outside the classroom in a way that is revolutionizing the possibilities and the powers of the educator, and I am convinced that there is every reason to be hopeful of the reaction of our young people to the chances thus presented to them.

Where then does the university come in? Let us face the facts. It is not its business to talk of leisure. That will come later for some if not for all graduates. It is so easy to talk in terms of Oxford and Cambridge, of the delights of collegiate life and of long summer evenings spent in good talk amongst the beauties of mediæval idealism. Heaven forbid that I should decry what Oxford did for me; but all that is of the past. Collegiate existence is still one of the great goods of this world, but in the foreseeable future I cannot envisage its development in Australia on a university scale. We must accept the fact that the best we can do is to provide amenities to such extent as we can afford them, for the easy satisfaction of that appetite for good things which (for reasons already mentioned) I am sure exists far more generally than critics of the modern student like to admit. Such appetite is a plant of tender growth, which is easily discouraged in the early stages. That is why our Union building is probably our most priceless possession. In it in reasonable and seemly comfort our students can and do to an increasing extent—despite their lack of old-fashioned leisure—meet and discuss the affairs of this and other probable and possible worlds; in it they can and do listen to music, perform and watch plays and films, and read, thanks to Dr. Rowden White, in a comfort which is denied them amid the Penitridgean austerities of the General Library. The Union is our strength, and I am proud to record it.

That great philosopher, Alexander of Manchester, once remarked that he would fully agree with the definition of a university as an instrument for professional training, provided the words “in a liberal spirit” were invariably added. All of us would pay lip-service to that qualification, though we might differ over the nature of the incantations which should nowadays be used to summon that spirit from the vasty deep of specialism. Something can be done by the means which I have just outlined. But this is not enough. The university cannot divorce itself from all responsibility in the matter by producing the desirable physical environment and leaving the rest to students themselves and such casual contacts as may be possible between them and their teachers. It was theoretically at any rate easier in times past to provide the makings of the liberal spirit than it is today. Then, the classical tradition and the Christian outlook between them formed a uniform compost, so to speak, out of which it could be taken for granted that the spirit which can look over the bounding walls of a specialty would grow and flourish in at any rate a reasonable percentage of the limited numbers whose education reached the higher levels. Today things are very different. We are dealing with much larger numbers; little can be taken for granted; the world is full of shrill propaganda subtly designed to unseat reason from its throne, and young people, blown about from one quarter to another, are apt to take the easy path of seeking refuge by refusing to think except about narrow interests or by clinging to unconsidered dogma.

If it is the business of a university to temper professional training with the liberal spirit, to promote the fusion of the humane and the scientific standpoints, it clearly cannot stand aside and refuse to throw out any life-lines to those who pass through it. It must try—not dogmatically, for that would at once contravene the liberal spirit, but with such instruments as are at its disposal—to lay the foundations for a breadth of view which has tended to be conspicuous by its absence since science became king. Of one such instrument I have spoken—the physical amenities, which in themselves are an encouragement for the good life. The other is the tone and tenor of university teaching.

Those who speak of the university as nothing but a technical school—mistaken as are all critics of the “nothing but” persuasion—imply that what goes on in our lecture rooms and laboratories is directed solely towards the business of qualifying for the earning arena. I am prepared to admit that of recent years outside pressures have forced some over-emphasis along these lines, though I greatly admire the way in which our staff have counter attacked

and the results which have been achieved by their efforts. It is after all ridiculous to suppose that there can ever be no technical content in any university course. The amount of it will vary from time to time in accordance with community needs and the point of view of individual teachers. In days like these, for obvious reasons, there is a great temptation to increase it, and the professions themselves who criticize our graduates so glibly are by no means blameless in the matter. The university cannot ignore these outside pressures. But there are certain essentials to which it must adhere at all costs in its teaching. The first is emphasis upon fundamentals, which is not always easy. People often talk—especially when research is in question—as if it was quite a simple matter to draw a line of demarcation between what is fundamental and what is applied knowledge. If it was ever possible, it is utterly out of the question today, and no realistic university teacher can fail to recognize it. It remains his duty to colour the whole of his teaching with reminders of the principles upon which his field of inquiry is founded, and never to forget that it is the chief business of the university to prepare for the professions by pursuing the arts and sciences on which they are based. But to argue from this that there should be no specifically utilitarian flavour in our courses is to shut our windows on a world that has little time or use for cloisters, and to encourage in our students an unrealistic outlook, which like all students—heaven knows—they are only too ready to adopt.

Which brings me to my second point. I have spoken of the increasing coalescence along the margins of fundamental and applied knowledge. University teaching should reflect this as one of its most important functions—and one of its most difficult. It is so easy to talk about it as desirable, so difficult to do anything very much about it. It is not just a matter of professors lecturing on their own subjects in each other's departments, good though that is within the limits imposed by time and circumstance. It resolves itself basically, I think, into a question of that internal harmony in the university of which I spoke to you at the beginning, and to which for the reasons I am now traversing I attach such particular importance. That may seem to you an over-simplification of a difficult problem, but I do not believe it is. If staff members live in watertight departments, however devotedly they work in them, that isolation will inevitably be reflected in their teaching and in the general outlook imparted to their students. As the bounds of knowledge grow wider in one direction and more inextricably intertwined in the other, how can it be said that a university is doing its job unless it can manage to persuade its own departments to interact along their margins? And—descending from the general to the very concrete—how can such interaction take place on other than the most formal lines (which are the least effective means of producing the objective sought) unless the atmosphere in the university itself is such as to encourage it? If, as has been known to happen in universities before now, private quarrels are rife and internal friction between individuals or between academic and administrative bodies is the order of the day, it is inevitable that the teaching in that university, good though it may be in spots, will generally speaking fail to fulfil one of the most important of its contemporary functions—that of opening up for young people vistas on to a kaleidoscopic world and in fact of laying the foundations of a liberal attitude—which can be done through the medium of science taught in a liberal spirit just as effectively as it can by administering straight doses of the humanities. Recent advances in physics alone, little though I know about them, should serve to illustrate how thin the dividing line between science and the humanities is becoming, and so far as your profession is concerned that line has never been very thick, though unimaginative teaching has sometimes made it so. I am proud to record my impression that over the last ten years, thanks to the inspiration of certain members of our staff in all departments of the university, we have made most encouraging progress in the direction of a very real and effective integration of previously isolated departments, not merely within faculties but between faculties as well. That

is due basically to the fact that we have been an internally harmonious community, and if this seems to you an overstatement based on an administrator's foible, I am content to let it rest at that and to wish for my successor the same happiness from cooperation with his colleagues as it has been my lot to enjoy. But I assure you again that the fostering of this harmony is much more than a tactical scheme of administrative self-defence. It is vital to the true prosperity of any university.

I have said that university teaching should stress both fundamentals and the increasing fusion of the fields of knowledge. It should also, of course, at all stages stress the contemporary importance of the instrument whereby that fusion is promoted—research. I yield to no one in my high estimate of the place which research should occupy in the structure of any university, and I take pride in the work which is being carried on in many of our departments. But I feel sure that of late years we—and I speak now of university theorists in general—have tended unduly to exalt research at the expense of teaching, and that the true picture of a university's function has been blurred thereby. In my young days university people did not talk much about research. They just did it, if the flame burnt brightly enough in them. It was counted to them for righteousness by those who knew about it, but nobody supposed that they had a monopoly of the keys of heaven. The Arts man who dealt faithfully with his pupils and kept up with his reading—a process nowadays too often called research (as is the work done on house-to-house surveys by young women for Gallup polls)—he too was generally supposed to have at least as good a chance of catching Saint Peter's eye as his scientific colleague. After all, really good research men capable of original work are rare. Any university outside the fortunate few whose coffers have been filled by philanthropists can count itself justly blessed if it can point to a dozen of them working at one time within its walls. And yet to hear some of the extremists talk you would come to the conclusion that teaching was nothing but an unfortunate though inevitable excrescence upon the body academic, and that nobody should be appointed to a university staff unless his research record was of first-rate calibre. There are parts of the world, of course, in which research has become nothing but a racket, in which the man with 25 fifth-rate papers to his credit is liable to be preferred for appointment to the man with one good one, and in which the head of a department is apt to be severely censured by the head of the university because his staff's output of published work showed a decrease over the previous year. We, thanks perhaps to our comparative poverty (but I should like rather to think to our truer appreciation of real values), have adopted an attitude less uncomplimentary to the worth of the teacher. The teacher is the backbone of any true university, and there will always be teachers of first-rate capacity whose talents do not lie in the direction of original work and will be sadly wasted if the pressure of academic opinion forces them to devote time to so-called research that could be better spent in their proper job. But do not misunderstand me. The prosecution of research, the acquisition of new knowledge, is a vital component of any university structure for two main reasons. The first is that there will always be a proportion of people on the staff whose basic happiness depends upon the provision for them of opportunities for doing original work. The proportion may, indeed will, be small, but the people will be good, and their influence in the place will be invaluable, whatever their calibre as teachers. The second is that in the absence of real research actively prosecuted on the premises, any teaching that is expected to reflect the fusion of fields of knowledge must have a flavour of the unreal and the second-hand. It may be that most students will have little contact with the actual operations of inquiry, though in good departments many of them will and do. But the real thing is there, even if it is round the corner, and that is an essential and invaluable factor in the make-up of that impalpable atmosphere which distinguishes a good university from a bad one.

Two other points about research. Criticism is sometimes directed at universities because their work shows little result, and it is implied that the money spent in them in this sphere would be better devoted to the support of full-time workers in other institutions. It is, I think, a mistake to write off the possibilities of part-time research too lightly. Provided it is carried out by competent enthusiasts, and provided there is the maximum possible degree of cooperation between the university and other institutions (a matter of enormous importance in our relatively small community), there is no reason to doubt both its potential and its actual value, quite apart from its essential place in the university as an integral part of the structure. In any case, where are you going to train the full-time research workers of the future unless in universities, and how are they to be trained unless by those who are familiar by actual practice with the necessary techniques? The recent foundation of the National University in Canberra—as you know, a research institution—emphasizes my point. Whether or no on my definition it is right to call it a university may be arguable. But I have no wish to quarrel about words. The facts are that there is being gathered in Canberra an extraordinarily distinguished group of senior research workers, and that there will be urgent need to staff their schools with the best material available. That in effect can come only from our other universities, and it will take us all our time to provide for all our needs. It is urgent that our resources be substantially increased—but I do not want to introduce an unpleasant note into this address. Let me just say that I believe that the National University will eventually very greatly strengthen the overall research activities of the whole academic body of Australia, though there may be an intervening period in which available manpower of the requisite calibre is hardly sufficient for the proper development of both our schools and theirs.

My second point is this. It is most desirable that a more realistic attitude towards the implications of a research career should be sedulously propagated. At present, influenced not only by imperfect appreciation of the qualities necessary, but also, I fear, by the alluring professors of the comic strips, an extraordinarily high proportion of those who seek my advice tell me that their chosen vocation is research. Very few of them are in any way fitted for it. It seems very odd to me that, whilst nobody is prepared to tell those looking for careers that it is easy to write like Shakespeare, it is not unusual for them to be encouraged to believe that it is easy to research like Rutherford. They come to me aglow with fantasies of dramatic discoveries made in laboratories festooned with alluring retorts and bottles, and when I tell them that they are unfitted to do more than wash the bottles, they regard me—to descend to the vernacular—as an academic “nark”. I trust that I have not discouraged any great number of mute, inglorious Einsteins, but my conscience is pretty clear in the matter.

You will realize from what I have said that I regard those who over-emphasize the technical and the research aspects of university operations as forming barriers to a clear understanding of our real objectives. There is a third group—perhaps not very vociferous in Australia—about which I will say a very few words, and I can best approach my point by quoting from a recent speech delivered by the vice-chancellor of an English university. “The universities”, he said, “are often blamed for not dealing with the fundamental questions that concern the student as a man and not as a chemist or a lawyer or a philologist, for not giving him, or at least not offering him, a world-view by which to form his attitudes and guide his life. It is a question at any time whether it is the duty of a university to impart a philosophy of life in any dogmatic shape or whether university teachers could possibly be chosen for their posts on this basis. The university period again may be thought rather early for propounding or embracing anything so ambitious as a philosophy of life. The answer of the old German to the young one who had this ambition still holds—“*Junger Man, erlebe was*”—young man, go and live. If a university

course is to include anything so ambitious as a philosophy of life, some of you will be here for a long, long time, perhaps for the term of your natural life.” I quote this merely to say that I agree wholeheartedly with the sentiments expressed. In expounding the fundamental arts and sciences which underlie the practice of the learned professions, in encouraging outside lecture room and laboratory the freest possible expression of opinion of all kinds, the university is providing materials for the formation of an outlook. What that outlook is to be is not the business of a university in a community which believes in democratic principles. There will, of course, be teachers whose influence due to their personalities or their eloquence will inevitably be powerful and will not be limited by the formal pabulum of the classroom. If they possess the true university spirit they will take infinite precautions against any kind of indoctrination and will continually emphasize the duty of the individual to make up his own mind on the evidence available. The provision and presentation of that evidence—unbiased and uncensored—are the business of a university, and I believe that we in Melbourne are living up to our obligations in a way that should evoke no criticism. But, of course, it does.

Ever since I came here I have been told at intervals that I administer a hotbed of communism and that I ought to do something about it as a matter of urgency. Now and then I have been told that communism is actively propagated in certain of our lecture rooms. Were this last statement to be substantiated, it would be a very serious matter and I should have no hesitation in pressing for the instant dismissal of the guilty party. In point of fact I have always found on investigation that the persons from time to time concerned, whose private views are nobody's business but their own, were so anxious to be impartial that their lectures were definitely dull. Teachers are human beings and are not infallible. They are as subject to the ills of the flesh as lesser mortals and more subject than most to the ills of the spirit. It may well be that from time to time, under one pressure or the other, the façade breaks down and occasion is given for malignancy. But I take this opportunity of saying with all the emphasis at my command that we have a staff here of which any university in the world could be proud, and that I find it difficult to contain my own pride in my association with them for so many years. As regards the more general statement about hotbeds, I should have regarded it as a serious criticism of myself had I presided over a refrigerator—which is, I suppose, what our critics would like to see. A university should, of course, be a hotbed in which opinion of every sort is fermenting in the most active fashion. And how under present circumstances can you expect to exclude communism—real and pseudo—from it? I am not, I hope you will believe, a communist. I disagree with both their diagnosis and their prescription, and I do not under-estimate the weight of the dangers that confront the world from those who advocate the creed of violence. But were I forty years younger than I am, forty years less conversant with the frailties of human nature and the dilatory business of trial and error that must underlie all progress, I do not suggest that I should be a communist, but I daresay I should be called one. You must make allowances for the hasty idealisms of youth in a world that has lost the old certainties and has replaced them with little or nothing that is worth while. I have seen more of intelligent youth in the mass than most people, and I know something of the difficulties which beset them. Those difficulties present a challenge to the universities and to you which we shall minimize at our peril. Our young people are as good as their forefathers—in some ways better. What the universities can and must do for them is to afford a breathing space, in which they have opportunities of survey, of making intellectual—and sometimes other—errors, and of passing on into real life with an equipment of both professional and humane furniture which has stood some preliminary tests. The kind of person it produces is the ultimate touchstone by which any university must be judged. What you can do for them is to be patient and understanding—patient when

they talk what you regard as nonsense about short cuts to world reformation, and understanding when they label themselves with the fashionable placards of the day. Above all—and this is what I am really saying—above all believe in the essential soundness and sanity of young Australians. They will not disappoint you or their country.

One last point before I close. We are often accused—as if it were our fault—of being too big. It is true that in my time I have seen our student numbers double owing to circumstances of which I need not remind you. The fact that our standards have not appreciably declined as a result is another tribute to the devotion of a staff which I have already praised. But there are limits to academic endurance, and those limits are in sight. There will be no appreciable reduction in student numbers from now on—indeed as a result of Federal scholarships and our immigration policy we must expect that within a decade at most we shall again be confronted with the overwhelming pressures of three years ago. I have no time to discuss the advantages or disadvantages of academic elephantiasis. But the prospect before us raises one point of very great importance. Large size and good standards are not necessarily incompatible in a university—there are many examples to support that statement. But large size and good standards are not compatible with inadequate resources, and unless the attitude of those who tax us towards the needs of higher education undergoes a rapid change, I can see nothing in prospect but a rapid decline in the reputation of our universities. We shall have, I think, to make the best of our swollen numbers for some time to come. It is difficult to envisage the foundation of a new university which could duplicate our higher levels, or of an institution of the American college type which could bring relief to our lower. But given adequate finance—perhaps £500,000 a year more than we receive at present from a State Government which has done its very best for us and cannot well do more—I can see no reason why the mere fact of size should make impossible the continued production of that *élite* by which a university must stand or fall. Our financial needs sound large. When Sir Harry Lawson many years ago rescued us from a difficult position—for which we shall always be grateful to him—the sums involved were ludicrously small on present standards, though sufficient to enable men like Tucker, Masson, Allen and Harrison Moore to do the work which brought so much distinction to the university. But our needs must be met unless the true welfare of the community is to suffer, and I lay down my burden with the conviction that, although there may be a difficult time immediately ahead of us, it will not be very long before fair promises are translated into performance, according to academic and not political lights, which are apt to be of sadly different candlepower.

When a stranger first visits the University of Melbourne he is apt to be taken aback by the remarkable diversity of our architecture and, I suspect, to jump to the conclusion that the spirit which inhabits our domain must reflect the apparent waywardness of its environment. Nothing could be further from the truth. Our buildings are a parable—and a good one. In days like these I should be sorry to see us living in the calm certainties of Gothic or Moorish palaces. Our surroundings are a constant reminder that we live in precarious times and that unless we do something about them no one else will. I take my leave of them with a heart full of hope for our future—in so far as it is in our keeping. Those of us who have seen something of the courage and resolution with which those who came back from the services tackled the laborious business of readaptation to civilian life can have no doubt of the essential soundness of our human material. And that after all is the main concern of a university. Theorize about its function as you will, you come back at last to the individual for whose service we exist. That it has been my privilege for thirteen years to bear some part in this work will be a lasting satisfaction to me, and my heart will remain in the land of Academe, though my body may be working in other and less delectable fields.

## UROLOGICAL PROBLEMS IN GENERAL PRACTICE.<sup>1</sup>

By JAMES S. PETERS, M.S. (Melbourne),  
F.R.C.S. (England), F.R.A.C.S.,  
Assistant Urologist, Prince Henry's Hospital,  
Melbourne; Consultant Urologist, Gippsland  
Base Hospital, Sale.

THE practice of urology is essentially one of management, investigation playing a large part in reaching a final decision as to the method to be used in achieving the most beneficial results to the patient. There is no single classification of causes, but rather an integration of causative effects, and their symptomatology is confusing unless elucidated by investigation of an exact character. So with any particular example, doubt must persist in the mind of the clinician if the usual treatment is unsatisfactory. These cases become the most common problem in practice.

The problems are best considered in relation to the respective age groups. In general they separate into two main groups: firstly, those requiring immediate investigation such as hæmaturia, and secondly, those whose investigation can be delayed until after a reasonable time with customary management—an example being enuresis.

### Urological Problems in Children.

Enuresis is the common problem, and psychological causes are difficult to eliminate. One factor needing careful consideration is common sense in training; often a conscientious mother causes the child to resist the constant attention, and at the other end of the scale there is the careless mother who gives no training at all. It has been said by men of great experience in this work that one parent is often unstable. This is supported by experience of hospital treatment of children who respond to training and a happy environment.

The usual treatments, such as fluid restriction at night, the use of alarm clocks to waken the child (these patients, according to the Edinburgh survey, are shown to be heavy sleepers), the exhibition of thyroid extract, and the use of antispasmodics such as belladonna, are often continued too long without success.

Persistent enuresis should be investigated. Simple measures, such as investigation of the urine and the elimination of vulval or meatal infection, may reveal an initiating cause, while patients with dribbling of urine day and night or paradoxical incontinence are suspected of embryological defects and ectopic ureteric orifices.

Panendoscopic examination of the urethra and bladder reveals a surprisingly high incidence of abnormalities of the posterior part of the urethra, verumontanal lesions and bladder-neck obstruction. The incidence of abnormalities is higher in America than here, but I noticed while there that patients with persistent enuresis tend to migrate to the large clinics. For my part I find infection, occasionally with obstruction to the bladder neck, the most common organic finding. But it is reasonable to investigate these patients for organic lesions before dismissing them as suffering from purely functional enuresis—a procedure of investigation which is universally adopted for all other parts of the body. Cystoscopic examination, of course, is sufficient for bladder examinations, but gives no accurate information regarding the urethral condition.

Undescended testicles are bilateral or unilateral and may be associated with deficient development of the genitalia. Patients with bilateral undescended testicles associated with poorly developed genitalia appear theoretically the patients who respond to treatment by endocrine injections. The more usual undescended single testicle, arrested at the external inguinal ring and often associated with inguinal hernia, has not really been proved to respond to endocrine treatment. Some such testicles have descended, but so do

<sup>1</sup> Read at a meeting of the Victorian Branch of the British Medical Association on August 26, 1950, at Sale.

some without any treatment. Authorities differ in their attitude; many consider that endocrine treatment is harmful in this group, producing an endocrine imbalance, but the position is so obscure that the general interpretation is that endocrine injections are neither useful nor harmful—just expensive. These patients usually require surgical treatment for practical indications, such as trauma and pain with youthful activities. Direct implantation in the scrotum is more favourably regarded now than the operation of fixing the testicle to the thigh, because in the latter operation the incidence of testicular atrophy is said to be higher.

#### Urological Problems in the Young Female.

Persistent frequency of micturition is the troublesome problem. This is the one that continues after psychological causes have been eliminated, urine examination has revealed no obvious infection, and chemotherapy has failed. A careful history may show periodic attacks of exacerbation and intramenstrual discharge. These require complete urological examination to determine the focus. Urine examination and culture are particularly important during the periods of exacerbation to find the causative organism, and the focus may be in one or other kidney or in the cervix. Often in such cases panendoscopic examination reveals basal trigonitis and urethritis with associated cervicitis, and conservative treatment to the focus gives lasting benefit.

"Pyelitis of the marriage bed" is a well-known clinical entity. The basis of this may be urethral trauma; conservative management is successful, and rarely is complete investigation needed.

Pyelitis of pregnancy is well known, and I have little to add to accepted methods of treatment. Urine culture is necessary to be accurate in chemotherapy, and a similar procedure should be adopted in the post-puerperal period to ensure that any residual infection is treated. It is in these cases that excretion urography reveals moderate dilatation of the ureters and kidney pelvis. This may persist, and no treatment is necessary in the usual variety, which is now accepted as being endocrinological in nature and in the same category as varicose vein dilatation from a similar cause.

Tuberculosis of the urinary tract is always the first to be eliminated where frequency of micturition is a symptom. Some facts can well be emphasized. The urine is often acid and sterile by ordinary cultural methods. A few red blood corpuscles are usually found by the time the bladder is involved. Cystoscopic appearances are deceptive, especially in mixed infections, and the primary lesion is renal—and best revealed by excretion urography. Free examination for tubercle bacilli is made by the University of Melbourne by stain and culture methods, and the twenty-four hours' sediment, including two morning specimens, is best used.

#### Urological Problems in the Matron.

In persistent frequency of micturition in the matron, investigation may reveal interstitial cystitis, occasionally with its allied Hunner's ulcer, as the cause. The patient has suprapubic pain, increasing frequency of micturition, some terminal scalding, and occasional hæmaturia and exacerbation of extreme frequency both day and night. The diagnosis is made by cystoscopic findings. The lesion is on the vault—pale areas of mucous membrane with "spider naevi", vascular markings and sometimes a typical Hunner's ulcer. The bladder capacity is small, and a few drops of blood can be seen coming from the affected areas as the bladder is dilated. Associated cervicitis may be found, and possibly interstitial cystitis follows in after years on chronic infection as dealt with in the earlier age group. The treatment is both general and local, consisting of general vitamin and sedative therapy with antispasmodics, such as tincture of belladonna, ten minims three times a day, and chemotherapy depending on the results of culture. However, the urine is usually sterile. Local measures include daily dilatation of the bladder, the first if necessary

under general anaesthesia, to a capacity of 20 ounces, and daily instillations of silver nitrate solution (1:7500, decreasing daily by 1:1000, then by 1:100, to reach a concentration of 1:200 or 1:100). The silver nitrate solution is run by catheter in amounts of 50 to 60 millilitres and left *in situ* for five minutes, then drained off. The patient experiences some vesical irritation which passes off in an hour or so. During this procedure be careful of spilling the solution on clothing or linen because of the discoloration. Ulcer treatment is by diathermy, and in very resistant cases surgical measures may be required.

#### Urological Problems in the Elderly Female.

Urethral caruncle is uncommon. More frequently occurs prolapse of the mucous membrane with linear cracks, ulceration and urethritis. This condition may be associated with the so-called "senile cystitis", in which the urine is alkaline and the organism is of the urea-splitting class. It is obvious that the indiscriminate use of *Mistura Potassii Citratæ* results only in intensification of the condition, although the antispasmodics in this mixture may afford temporary relief. On cystoscopic examination the capacity of the bladder is reasonably good but the trigone and adjoining areas are grossly inflamed and oedematous with adherent phosphatic encrustations. The treatment should be by chemotherapeutic measures based accurately on the causative organisms found by culture, acidification of the urine, and local treatment to the urethra. When prolapse is present an anaesthetic ointment such as "Nupercainal" applied locally gives relief. Should stricture be present dilatation is necessary, and silver nitrate applications are useful in resistant cases. Diathermy to the supposed caruncle only aggravates the condition and finally causes stricture.

#### Urological Problems in the Young Male.

Non-specific prostatitis-urethritis causes terminal scalding on micturition, urinary frequency, rectal and thigh discomfort and urethral discharge. If granulations occur in the posterior part of the urethra, then hæmaturia and hæmatospermia may occur.

These cases are confusing. Neisserian infection needs elimination, and in the non-specific cases a causative organism is rarely discovered; possibly many are due to virus infections.

The patient is usually a tense young man, and occasionally associated blepharitis and joint pains give the syndrome of Reiter's disease.

The management of prostatitis-urethritis is becoming more conservative; instrumentation and prostatic massage are reduced to a minimum. General measures include vitamin therapy and the exhibition of sedatives and antispasmodics.

The use of chemotherapy depends on the results of culture. These are frequently negative, and experience shows that the indiscriminate use of antibiotics in these cases is useless. In cases of Reiter's syndrome "Novarsenabillon" is given intramuscularly with varying results.

Prostatitis-urethritis can progress to prostatic abscess, prostatic calculi, chronic fibrosis of the gland and painful vesiculitis.

#### Urological Problems in Middle Age.

Sterility is often the fault of the male companion. It has been variously estimated in childless marriages to be as high as 50%; but rarely is the male investigated until the female is found to be normal—and rightly so. The semen analysis reveals complete aspermia, or a relative decrease in total count with bizarre shapes. General therapy with vitamins and treatment of any prostatic infection yield fair results in the latter cases; but unless a stenosis of the vas is present which can be relieved surgically, the prognosis in the former group is poor. Endocrine therapy is, in my experience, useless; but reports of the use of anterior pituitary extracts are suggestive of success.

Impotence is much more common than is usually supposed. Its association with psychological factors such

as fear and distaste and incompatibility is well known. But there are a group of subjects who have posterior urethritis and prostatitis which can be relieved by local treatment—silver nitrate instillation to the posterior part of the urethra combined with endocrine therapy. "Testoviron", 10 milligrammes given by injection at intervals of six to seven days for a month, followed by oral administration, is beneficial, especially in the higher age groups (between fifty and sixty years).

It is a practical fact that treatment by endocrines is rarely successful unless infection in the posterior part of the urethra is first treated.

Rarely in cases of premature ejaculation panendoscopic examination reveals organic disease of the verumontanum of an inflammatory nature, and Americans report success by local diathermy; but I believe that instrumentation in these cases is rarely indicated.

#### Urological Problems in the Elderly Male.

"What size is the prostate?" is a question raised by patient and doctor in answer to the problem of bladder-neck obstruction. The size is, firstly, unimportant as a basic reason for treatment, and secondly, from the limited area available to examination *per rectum*, it is extremely difficult to estimate.

A variety of lesions can cause bladder-neck obstruction—fibrous bar, fibrous prostate, middle, trilobar, lateral and posterior lobe enlargements, bladder calculi and neoplasms. These are easily confused, for the symptoms may overlap, and of course obstruction with associated infection produces calculi.

An estimate of the size can certainly be gained by rectal examination; but a much more accurate guide and a reasonable answer for the relief of obstructive symptoms are clinical estimations of difficulty of micturition supported by cystourethrograms, from which one may assess the accurate details of the obstruction process. The cystourethrogram may show tortuosity of the posterior part of the urethra, an extremely large size in some, and considerable irregularity. Yet in others the prostate may be large but the urethral deformity minimal. Rectal examination is valuable also in the discovery of neoplasms of the prostate—the neoplasms starting most commonly in the posterior lobe, with its characteristic hardness, nodularity and lateral extensions on one or other side of the rectum.

But the size really concerns only the person deciding the most suitable surgical operation to perform for relief of symptoms. In general these procedures are transurethral resection for small glands, and open operation by the retro-pubic or suprapubic method for the larger glands. But the treatment is directed to the general condition of the patient. Patients with cardiac failure and coronary thrombosis will tolerate only the less severe operation of resection, and may need catheter drainage or suprapubic cystostomy until the general condition is improved. Transurethral resection is no more difficult with a suprapubic tube *in situ* than in the bladder.

I have endeavoured to illustrate the mechanism and correlation of the symptoms and signs of frequency of micturition, stream diminution, difficulty in starting the act and dribbling—the paramount features of bladder-neck obstruction.

Cystoscopic examination is usually unnecessary as a diagnostic measure. Cystourethrograms are quite sufficient; but if instrumentation is indicated panendoscopy with a good view of the urethra is preferred. The danger that acute retention of urine may supervene on instrumentation is always present, and this manoeuvre is best performed at the time of operation as a prelude to transurethral resection or open operation.

It is the relief of symptoms and of obstruction to the kidneys for which surgical treatment is indicated, and not the size of the prostate.

Neoplasm of the prostate is best managed conservatively with stilbestrol given by mouth. A suggested method is a dose of five milligrammes three times a day for ten days,

twice a day for the next ten days. After this a maintenance dose of one milligramme is sufficient, and the complications of painful breasts, anorexia and oedema are avoided by the smaller maintenance dose. The patient can accommodate himself well to residual urine; but if bladder-neck obstruction is too severe transurethral resection relieves the symptoms, and resection may also be repeated later. Instrumentation should be kept to a minimum to avoid the danger of urinary infection.

Orchidectomy benefits the asthenic patients, and the resultant increase in weight gives them more security and in certain cases may relieve pain from secondary deposits in bone; but its effects are possibly short-lived. The best method of relieving pain from secondary deposits is by deep ray therapy.

In acute retention of urine, should catheterization fail, suprapubic cystostomy may be necessary. There are several worrying complications from the tube which can be avoided at the initial operation. A layer of prevesical fascia lies on the bladder, and this should be incised to allow reflexion of the peritoneum to a sufficiently high level for the tube to be placed well away from the trigone. Trigonal pain felt in the penis follows rubbing of the tube end on the trigone when the bladder contracts. In this manner also is avoided adherence to the pubis, which results in slow closure of the sinus after prostatectomy, if performed later.

#### Post-Operative Problems in General Practice.

The management of a patient after prostatectomy has caused many queries. To ensure a good result the management should continue for at least six months. It is not unusual for these patients to be resistant to treatment for urinary infection for three months. The prostatic bed takes time to organize, and unless the infection is severe, and the condition of the bladder diverticulum is then suspect, no alarm should arise. A single course of chemotherapy based on the results of urine culture at the three-month interval usually is sufficient to clear the urine. The reaction of the urine is helpful in management, and here again the indiscriminate use of alkalis only assists in deposition of phosphatic calculi and the production of alkaline cystitis.

The post-prostatectomy syndrome of obstruction is due to posterior urethral lesions, to incomplete removal of tissue, to fibrous contraction of the bladder neck or to stricture of the urethra. The symptoms and signs are again those of bladder-neck obstruction, and the treatment is endoscopic resection.

Dribbling of urine is more commonly due to incomplete prostatic removal than to damage of the external sphincter, and the suspicion of neoplasm is often substantiated by examination of the tissue after resection. The investigation needed is panendoscopy, and the treatment is endoscopic resection.

The management of calculi removal is usually confused. At the present time bladder calculi and stones in the lower end of the ureter are removed transurethral by the lithotrite or Bard Johnson bag respectively. The advantages are ease of operation and less infection, and early treatment obviates renal obstruction and infection. But in all cases the surgical treatment should relieve the cause of the obstruction. In the case of the bladder calculi the cause is usually bladder-neck obstruction, which unless relieved has a high recurrence rate.

The main factors in calculi formation are as follows: (i) diet—for example, oxalate stone occurring with oxalate crystallization; (ii) urinary pH—phosphatic stones in alkaline urine, oxalate and uric acid stones in acid urine; (iii) obstruction; (iv) infection. Infection with the urea-splitting organism *Proteus vulgaris*, many staphylococci, and *Bacterium coli*, will yield a 100% recurrence rate unless eliminated.

Careful management by alkaline or acid-ash diets to influence pH of the urine, restrictive diets (for example, oxalate-free diets in oxalated calculi) and control of infection remain as efficient methods of restricting the recurrence rate to 4%.

### Conclusion.

In conclusion, let me thank you all for your interest. I make no apologies for omitting such large subjects as hæmaturia, which I regard as requiring complete investigation, and I have spoken mostly of the problems I have been called upon to handle in my own consultant practice.

### TREATMENT OF GASTRO-ENTERITIS IN INFANTS WITH "CHLOROMYCETIN".

By D. C. FISON,  
Brisbane Children's Hospital,

AND

E. SINGER,  
The Queensland Institute of Medical Research.

GASTRO-ENTERITIS in infants and young children has been prevalent in Brisbane since the war years. In the earlier part of the period the case fatality rate was about 5%, but it rose to over 40% in an extensive epidemic which was caused by *Salmonella bovis-morbificans* in 1947, and there has been a recent but smaller increase in the number of cases, with eleven deaths, in the latter half of 1949. Other strains of *Salmonella* (especially *Salmonella typhimurium*) have been fairly prevalent throughout. *Shigella flexneri* II has become increasingly frequent since 1948. A centre of infection with *Shigella sonnei* became established in about November, 1949, and has since spread rapidly through the city, but a great many cases must still be classed as "non-specific" (Mackerras and Mackerras, 1949b).

Treatment has not been fully satisfactory. Penicillin and the "sulpha" drugs have been without obvious benefit in the *Salmonella* and "non-specific" infections, while sulphaguanidine and phthalyl-sulphathiazole have failed to cure infants with Flexner and Sonne dysentery, although they are effective in adults and the organisms have not shown enhanced resistance to these drugs *in vitro*. The results from polyvalent antidyenteric serum have not been encouraging. Streptomycin appears to have been useful in some cases, but most reliance has had to be placed on diet, measures to combat dehydration, and the parenteral administration of amino acids in an endeavour to protect the liver in severe infections (Stable and Philpott, 1948).

In July, 1949, a limited supply of "Chloromycetin" was obtained by the Queensland Institute of Medical Research. *In-vitro* tests were undertaken, as a result of which a clinical trial was proposed, at least in the severe *Salmonella* infections. The results were so striking that they are thought to be worth recording, even though the number of cases studied so far is small.

### Laboratory Findings.

The bacteriostatic effect of "Chloromycetin" was tested with some of the strains of *Salmonella* and dysentery organisms and compared with that of sulphadiazine. A medium free from para-aminobenzoic acid was used for the experiments with sulphadiazine and beef-infusion broth for those with "Chloromycetin". The therapeutic substances were added to the inoculated media after two hours of preliminary incubation of the test organisms in order to have the bacteria in the logarithmic phase of growth when first exposed to the drug.

Table I shows the results of these tests.

All specimens from patients were collected directly from the rectum by means of a small glass tube, of which the end was slightly bent and contained lateral holes. The material was plated at the bedside on to "*Salmonella-Shigella*" (S.S.) and McConkey plates, and the tube immersed in tetrathionate broth. In other respects the methods employed in this study did not differ from those previously reported by Mackerras and Mackerras (1949a).

The general composition of the intestinal flora in some of the treated children was also followed by daily rectal swabbing. In all cases there was a sudden reduction of the number of viable bacteria within twenty-four hours after administration of the first dose of "Chloromycetin". This reduction was demonstrated both by the appearance of faecal smears stained by Gram's method and by the small number of colonies which developed on the inoculated plates. *Escherichia coli* disappeared completely, the

TABLE I.

Organism.	Inhibiting Concentration after 18 Hours' Incubation.	
	"Chloromycetin," (Microgrammes per Millilitre.)	Sulphadiazine. (Milligrammes per 100 Millilitres.)
<i>Salmonella bovis-morbificans</i> (Case I) ..	2.0	1.0
<i>Salmonella typhi-murium</i> (Case II) ..	1.0	1.0
<i>Salmonella typhi-murium</i> (Case III) ..	2.0	3.0
<i>Shigella flexneri</i> Type II (Case VII) ..	0.5	0.5
<i>Shigella sonnei</i> (Case VIII) ..	0.2 to 0.3	0.25

only organisms which were not affected being slime-forming organisms of the *Aerobacter* group, *Pseudomonas pyocyanea* and *Proteus* species. If the faeces contained *Monilia albicans*, this fungus showed a decided increase in numbers during treatment. In Case I this was the only organism which could be isolated from the faeces during treatment, or which could be seen on microscopic examination of stained faecal smears.

Towards the end of the treatment period, and especially for one or two days after conclusion of treatment, there was a considerable increase of *Pseudomonas pyocyanea* and *Proteus*, until the normal flora was again established.

In young infants similar changes—disappearance during treatment and restoration of the usual numbers after cessation of administration—could be observed with *Lactobacillus bifidus*.

These observations encouraged us to try "Chloromycetin" in a case of so-called "non-specific" enteritis, in which no organisms belonging to either the *Salmonella* or the *Shigella* group could be found (Case V). Our experience in the treatment of "non-specific" infections is identical with T. M. Smellie's (1950).

### Clinical Observations.

"Chloromycetin" has an intensely bitter taste, and is supplied in gelatine capsules containing 250 milligrammes. As it is almost impossible to administer a capsule to an infant, the capsules had to be opened and the contents given in feeds. Some children made little objection to this, but others refused feeds containing "Chloromycetin", and vomited them if forced. For these the feed *plus* drug was administered through a small stomach tube passed by the nasal route, so that the feed was not tasted and vomiting did not follow. Many of these infants subsequently took feeds with added "Chloromycetin" without trouble.

The amount of "Chloromycetin" was first given at 120 milligrammes per kilogram of body weight per day in three-hourly doses, with an initial dose equal to four times the three-hourly dose. Thus our first patient, G. A. McL. (Case II), aged six months and weighing at the time but nine pounds, was given 250 milligrammes initially and approximately 60 milligrammes three-hourly for eight days. Two days after cessation of treatment there was a clinical relapse, so it was recommenced for another two and a half days, when the supply was exhausted.

So prompt was the effect of "Chloromycetin" in this first case, and so soon did the relapse follow its cessation, that it was thought by us that a better plan might be to give a smaller dose for a longer time. This was accordingly given in the next case (Case III). The patient, A.G., weighing approximately 22 pounds, was given the same absolute dose as G. A. McL., which was thus less than

half the dose, corresponding to approximately 50 milligrammes per kilogram of body weight. This was given for only six days and was quite effective; but this was a milder case.

In Case IV the patient, R.I.T., weighed approximately 18 pounds, and she was given 250 milligrammes *statim*, followed by 125 milligrammes four-hourly, which is 90 milligrammes per kilogram of body weight per day for seven days. This was effective and relapse did not occur.

The patient in Case I, S.A.H., received much the same dosage as G.A. McL., but had it for eleven days. There was a clinical relapse some days after cessation of treatment; but this responded rapidly to ordinary dietary measures.

It would appear from the tests thus made at the Brisbane Children's Hospital that a reasonable and effective course of "Chloromycetin" for an infant is approxi-

mately 100 milligrammes per kilogram of body weight per day given for ten to twelve days.

With the limited amounts of "Chloromycetin" to hand we have been able to cure all patients suffering from gastro-enteritis who gave cause for anxiety. From July to September, 1949, there were 11 deaths from this disease. "Chloromycetin" was first used on September 10, 1949, and from then on there were no deaths for the remainder of the year. During the preparation of these notes (June, 1950), there have still been no further deaths from gastro-enteritis at this hospital—this in spite of the fact that the epidemic has steadily grown as summer advanced, the numbers of cases in the hospital rising from an average of 15 to an average of 40 and the severity remaining equal.

The effects of the treatment are summarized in Table II.

TABLE II.

Case Number.	Pathogenic Organism Isolated.	Dose of "Chloromycetin" in Milligrammes per Kilogram of Body Weight per Day.	Number of Days on "Chloromycetin" Treatment.	Assessment, Fate of Organisms, Result.
I	<i>Salmonella bovis-morbificans</i> and <i>Shigella flexneri</i> .	120	11	Very severe infection. <i>Shigella flexneri</i> was recovered from stools on day after cessation of drug; but never after that. Patient cured.
II	<i>Salmonella typhi-murium</i> .	60	5	Moderately severe infection. Organisms disappeared. Patient cured.
III	<i>Salmonella typhi-murium</i> .	50	6	Severe infection. Organisms disappeared. Patient cured.
IV	<i>Salmonella typhi-murium</i> .	65	5	Moderately severe infection. One "positive" culture just after cessation of drug—then three consecutive "negative" results. Patient cured.
V	No pathogenic organism.	80	7	Moderately severe infection. Patient cured.
VI	<i>Salmonella typhi-murium</i> .	90	7	Moderately severe infection. No organisms isolated from two days after commencement of drug. Patient cured.
VII	<i>Salmonella typhi-murium</i> .	250	5	Mild infection. Culture already giving negative results before drug commenced; but patient not clinically cured. Clinical cure followed "Chloromycetin" course, and stools remained bacteriologically clear.
VIII	<i>Shigella sonnei</i> .	120	11	Moderately severe infection. Organisms disappeared. Patient cured.
IX	<i>Salmonella javanensis</i> and <i>Shigella sonnei</i> .	70	5	Moderately severe infection. Both organisms reappeared until 17 days after cessation of drug, and then disappeared spontaneously. Patient cured.
X	<i>Salmonella typhi-murium</i> .	125	10	Severe infection. Organisms disappeared. Patient cured.
XI	<i>Salmonella bovis-morbificans</i> .	65	4	Moderately severe infection. Organisms disappeared. Patient cured.
XII	No pathogenic organism.	70	6	Severe infection. Clinical improvement.
XIII	<i>Salmonella typhi-murium</i> .	15	16	Severe infection. One positive cultural result seven days after commencement of drug, but negative results after that. Patient cured.
XIV	<i>Shigella para-dysenteriae</i> Flexneri.	125	4	Severe infection. Organisms disappeared. Patient cured.
XV	<i>Shigella para-dysenteriae</i> Flexneri.	75	4	Severe infection. Organisms disappeared. Patient cured.
XVI	<i>Shigella sonnei</i> .	100	4	Moderately severe infection. Organisms disappeared. Patient cured.
XVII	<i>Salmonella typhi-murium</i> and <i>Shigella sonnei</i> .	50	4	Moderately severe infection. <i>Shigella sonnei</i> was present three days after commencement of drug. All subsequent cultural findings were negative. Patient cured.
XVIII	<i>Salmonella typhi-murium</i> and <i>Shigella sonnei</i> .	75	4	Moderately severe infection. <i>Shigella sonnei</i> was present, in three cultures after commencement of drug. <i>Salmonella</i> disappeared. Patient cured.
XIX	<i>Shigella sonnei</i> .	100	4	Moderately severe infection. Organisms disappeared. Patient cured.
XX	<i>Shigella sonnei</i> .	75	4	Moderately severe infection. Organisms disappeared. Patient cured.
XXI	<i>Shigella sonnei</i> .	75	4	Moderately severe infection. Organisms disappeared. Patient cured.

### Discussion.

We have formed the impression that treatment with "Chloromycetin" is able to arrest the pathological process in severe cases of gastro-enteritis in infants, if the infection is caused by *Salmonella*, dysentery, or so-called "non-specific" bacteria. Many—if not most—of the children who have been treated, and as we think cured, by "Chloromycetin", would have died of their infection.

The course of treatment was approximately 100 milligrammes per kilogram of body weight per day given in divided doses with each three-hourly feed. Such course extended for a period of twelve days in severe and resistant cases, but brought the necessary beneficial results in six days in milder cases.

Although "Chloromycetin" is at present expensive, routine treatment of severe gastro-enteritis with "Chloromycetin" would reduce the time of stay in hospital, and in this way reduce the costs considerably. The average stay in hospital was thus reduced from forty-two days to thirteen days after "Chloromycetin" treatment was begun, the average cost of cure of a patient with gastro-enteritis being reduced from £48 to £25 10s.

### Summary.

"Chloromycetin" in concentrations of 0.2 to 2.0 microgrammes per millilitre was inhibitory to all bacteria encountered in gastro-enteritis in infants and children.

Clinical trial showed "Chloromycetin" to be an effective agent in the treatment of gastro-enteritis. From July to September, 1949, there were eleven deaths from this disease. "Chloromycetin" treatment was commenced in severe cases in September, 1949, and from then onwards there were no deaths, in spite of increase in the prevalence of infection in which the average of occupied beds rose from 15 to 40.

"Chloromycetin" is given mixed with the baby's feed in three-hourly or four-hourly doses, in amounts of approximately 100 milligrammes per kilogram of body weight per day for ten to twelve days in severe cases. In milder cases smaller doses and administration for a period of four to six days may prove effective.

### References.

- Mackerras, I. M., and Mackerras, M. J. (1949a), "The Bacteriological Diagnosis of *Salmonella* Infections", *THE MEDICAL JOURNAL OF AUSTRALIA*, Volume I, page 1.  
 — (1949b), "An Epidemic of Infantile Gastro-enteritis in Queensland Caused by *Salmonella bovis-morbificans*", *The Journal of Hygiene*, Volume XLVII, page 166.  
 Stable, G., and Philpott, I. G. (1948), "An Epidemic of Gastro-enteritis in Infants, with Special Reference to Treatment", *THE MEDICAL JOURNAL OF AUSTRALIA*, Volume II, page 63.  
 Smelle, T. M. (1950), in "The Newer Antibiotics", Royal Society of Medicine, *The Lancet*, Volume I, page 544.

### SARCOIDOSIS: DIAGNOSIS AND MANAGEMENT.<sup>1</sup>

By BRUCE ROBINSON,

From the Pathology Department, University of Melbourne.

THE material presented is the result of the observation of 30 patients with confirmed sarcoidosis, and of 45 patients with signs suggestive of the condition. These 75 cases have been described and discussed in previous papers (Robinson and Pound, 1950; Nancy Lewis, 1950).

As sarcoidosis is a generalized disease which may affect any organ or tissue, it may present in a variety of ways, and a patient may be examined first by a practitioner in one of many branches of medicine. The signs and symptoms recorded at the onset of the clinical course of the disease in our cases are set out in Table I.

<sup>1</sup> Read at a meeting of the Section of Medicine, Australasian Medical Congress (British Medical Association), Seventh Session, Brisbane, May-June, 1950.

Although lesions appear to occur most commonly in certain sites, these are lesions that can be observed and investigated readily, and as a tissue may be affected without functional or symptomatic disturbance, there is no means at present of assessing the degree of involvement of the body as a whole. Involvement of virtually every organ has been described in the literature, but lesions in less accessible sites have been diagnosed only accidentally. In the absence of one of the classically described manifesta-

TABLE I.

Manifestations in 30 Cases.	Found at Clinical Onset.	Found During Course.	Total Number of Cases.
General symptoms .. ..	17	8	25
Loss of weight .. ..	16	3	19
Malaise and fatigue .. ..	14	3	17
Cough .. ..	12	3	15
Dyspnoea .. ..	11	4	15
Night sweats .. ..	8	3	11
Anorexia .. ..	7	2	9
Involvement of			
Lymph nodes .. ..	13	15	28
Lungs (X-ray) .. ..	12	9	21
Skin .. ..	9	2	11
Eyes .. ..	—	6	6
Facial nerves .. ..	1	1	2
Upper part of respiratory tract	—	—	4
Tonsil (biopsy) .. ..	—	1	2
Nose and sinuses (biopsy) ..	—	2	1
Larynx (biopsy) .. ..	—	1	1
Perforated nasal septum ..	—	1	1
Liver .. ..	2	11	13
Spleen .. ..	—	6	6
Phalanges (X-ray) .. ..	—	5	5

tions, it is not possible to make even a tentative clinical diagnosis. As isolated lesions showing the features seen in sarcoidosis can be due to other conditions, the diagnosis can be made only on evidence of the presence of a generalized disease. It is impossible to mention here the differential diagnoses of such isolated lesions; but in the cases investigated the tentative diagnoses when made, and the ultimate diagnoses when other than that of sarcoidosis, are set out in Table II.

Generalized diseases having manifestations resembling those of sarcoidosis must be considered. The most important of these is tuberculosis, which can produce a similar non-caseating granuloma, a similar appearance on X-ray examination and similar clinical signs. Many of these manifestations can be caused by other chronic inflammatory disease such as syphilis and yeast and fungous infections; by carcinoma, Hodgkin's disease, leukaemia, lymphosarcoma and the less common reticuloses; and by beryllium poisoning. These generalized diseases usually can be excluded by a consideration of the history, the results of the clinical investigations, and the course of the disease; but some forms of tuberculosis may be impossible to distinguish from sarcoidosis.

When a patient presents with lesions suggestive of sarcoidosis the following procedure should be adequate.

### History.

The patient should be questioned regarding contact with tuberculosis, and then for an account of a previous episode suggestive of sarcoidosis, such as iritis or a skin lesion. A complaint of symptoms of a general constitutional nature may be elicited (Table I). These symptoms are present when extensive tissue involvement is in progress and most commonly when there is radiological evidence of gross pulmonary infiltration. They occur at the clinical onset of the disease or at a stage of dissemination. They are always less severe than the extent of the signs would lead one to expect, and disappear within a few months despite the continued presence of widespread tissue involvement. *Erythema nodosum* has been seen in several cases and in one marked the clinical onset of the disease. It may be associated with a radiological appearance in the chest similar to that seen in sarcoidosis.

### Examination.

As sarcoidosis is a generalized disease, each suspected case demands a full examination with particular reference to the lymph nodes, skin, eyes, liver, spleen and upper part of the respiratory tract. Little can be expected on auscultation of the chest, as signs will be absent, or few and non-characteristic. Scars attributable to previous lesions may be found in the skin, eye and nose (atrophic rhinitis).

TABLE II.

Manifestation.	Tentative Diagnosis of Lesions Ultimately Proved to be Sarcoidosis.	Lesions Tentatively Diagnosed as Sarcoidosis but Proved to be Some Other Condition.
Lymph node enlargement.	Syphilis, tuberculosis, carcinoma, Hodgkin's disease, lymphosarcoma.	Tuberculosis, Hodgkin's disease, leucæmia, other reticuloses.
Pulmonary involvement (X-ray).	Sarcoidosis, tuberculosis.	Tuberculosis, cystic disease of the lung, carcinomatosis, chronic venous congestion, pneumokoniosis, pulmonary eosinophilosis, suppurative pneumonitis.
Skin lesions.	Sarcoidosis, lupus erythematosus, granuloma annulare, tuberculosis, foreign body granuloma, chilblain.	Multiple hemangiomas.
Eye lesions.	Tuberculosis, syphilis.	
Sinus and tonsillar involvement.	Non-specific inflammation.	
Laryngeal involvement.	Tuberculosis, sclerema.	

### Investigations.

#### Radiological Examination.

X-ray examination of the chest is the only convenient means of securing evidence of pulmonary lesions. It may provide the first clue in diagnosis when a subject is being investigated for a condition such as lymph node enlargement.

X-ray examination of the phalanges is useful. General rarefaction and cyst-like areas in the phalanges are not common, but when present are of great aid in diagnosis.

#### Blood Examination.

Blood examination is not a means of diagnosis, as the changes are not specific, but is made to exclude certain blood dyscrasias and pulmonary eosinophilosis.

#### The Mantoux Test.

The Mantoux test with 1:1000 old tuberculin sometimes produces a positive result in sarcoidosis; but if the result is negative it is of great help in excluding frank tuberculosis.

#### Search for *Mycobacterium Tuberculosis*.

The inability to demonstrate organisms in sputum or gastric contents does not rule out tuberculosis, but their presence probably indicates a caseating lesion such as is not found in sarcoidosis. Tubercle bacilli were not found in sputum or gastric contents in any of our cases. Gastric lavage was frequently required, as a productive cough was rare unless there was some other cause.

#### Biopsy.

The histological appearance is characteristic but not specific. It may be seen in a number of other conditions, of which tuberculosis is the most important, but nevertheless, when taken in conjunction with other available data, it provides the only means of making a positive diagnosis.

The biopsy should be secured on the earliest appropriate occasion, as remissions are common. Lesions of the skin appear to be more chronic than those elsewhere—perhaps

because minor degrees of involvement can be readily appreciated. Lymph nodes may become impalpable within a few months and yet remain the site of the disease. These may be difficult to find at operation.

Where there is a choice of site, the skin affords the most obvious and readily available material. A portion may be removed without fear of ulceration. The lymph nodes provide the next most suitable source, but inguinal nodes should be avoided if possible as they may exhibit non-specific inflammatory changes. When lesions are suspected in the nasal passages, a portion of the inferior turbinate bone is readily obtained. If there is no other suitable lesion, a needle biopsy of the liver should be considered. This was carried out in five of our proved cases and positive results were obtained in two. Needle biopsies of bone marrow, spleen or lung were not attempted.

At any operation no opportunity should be lost in securing tissue for histological study. It is obvious that this should be done in suspected cases; but if a diagnosis has already been made, tissue should still be examined so that further knowledge may be obtained of the natural history of this perplexing and protean disease.

#### Other Investigations.

In our cases studies of serum proteins, erythrocyte sedimentation rates and electrocardiograms gave no consistent results to aid in diagnosis or prognosis.

If no biopsy is obtained, a sound clinical diagnosis may be made if a sufficiently large constellation of signs is present. This would have been possible in Case VII of our series, in which there have been characteristic skin lesions, enlarged lymph nodes, typical radiological findings in lung and phalanges, iridocyclitis, and a negative response to the Mantoux test.

When no biopsy is obtained and few signs are present, it is possible to make only a tentative diagnosis after attempting to exclude other conditions that may give similar manifestations. These patients should be observed for long periods. This position frequently occurs when an X-ray picture of the chest displays an appearance similar to that seen in sarcoidosis. In Case XIII such an X-ray picture was obtained in 1922 when no other lesion suggestive of sarcoidosis was found. Further evidence of the disease did not appear until 1938, when enlarged lymph nodes were discovered.

#### Management.

No general restrictions are imposed on our patients when the constitutional symptoms have passed. From our bacteriological investigations and studies of relatives there seems no reason to regard them as infectious. It is impossible in the present state of our knowledge to say whether frank tuberculosis can coexist with sarcoidosis. It is certain that some patients develop this disease, but there is usually deterioration in general health before the Mantoux test result becomes positive and tubercle bacilli are discovered.

Three of our patients were permitted to undergo a first pregnancy. In all cases this was uneventful, and at present the mothers and infants are well.

The patient should be examined at regular intervals, which in the early stages should be fairly short, as there will still be some doubt regarding the possibility of tuberculosis. Later, the intervals may be longer. At each visit the symptoms should be reviewed, an examination made to observe remissions or exacerbations, an X-ray film of the chest taken and a Mantoux test performed.

If the Mantoux test result becomes positive, the change is usually associated with the disappearance of all clinical evidence of sarcoidosis or with the development of frank tuberculosis. It will be obvious that either a change in the Mantoux reaction or a deterioration in general health is a sign for renewed vigilance and a further search for tubercle bacilli.

#### Treatment.

Treatment is not satisfactory and results are difficult to assess owing to the nature of the disease.

The only form of treatment that appears to affect the process as a whole is the administration of calciferol for long periods. This was used in eight of our cases. Four patients said that they felt better and the lesions regressed during treatment. The dosage employed was 30,000 to 150,000 international units daily. In the liquid form this occasionally caused nausea, and tablets of high potency, each containing 50,000 international units, are now used. This treatment must be continued for many months and no rapid improvement is to be expected.

Toxic symptoms such as thirst, anorexia, vomiting, nausea, fatigue, malaise, headache, diarrhoea or constipation and abdominal pain have been described by Anning, Dawson, Dolby and Ingram (1948). They found these more common when the dose of calciferol was over 100,000 international units daily and the patients were of less than average size. As large doses may cause impairment of renal function, routine estimations of serum calcium content should be made. The only toxic symptoms complained of by our patients were nausea, nauseous eructations and diarrhoea.

In view of the uncertain nature of the results and the possible undesirable effects, it is considered that calciferol should be used only when lesions give rise to symptoms or disfigurement.

Local lesions may be relieved by other forms of treatment. Local irradiation was observed to cause at least temporary reduction in the size of lesions and in vascular congestion in three of five patients with skin sarcoids, in one with involvement of the sinuses and in another with laryngeal lesions. Lymph nodes became palpable and radiological changes in the lung cleared during irradiation in other cases. There seems no advantage to be gained in using this treatment for such local manifestations of what is essentially a generalized disease unless symptoms or disfigurement are present.

Lesions in the eye and upper part of the respiratory tract must receive symptomatic treatment. Those of the eye have been discussed by Nancy Lewis (1950). In our experience those of the nasal mucosa and tonsils could not be distinguished from non-specific inflammatory changes and were treated as such.

Rest and warmth were repeatedly observed to cause a temporary shrinking and paling of the skin lesions. The use of suitable cosmetics should be advised.

#### Prognosis.

It is difficult to make a prognosis, as it is impossible to estimate the extent, course or duration of the disease. The lesions may remain apparently unchanged for many years, they may disappear within a few months, or they may be replaced, sometimes after long periods, by others elsewhere. Residual fibrosis, as in the lung, may appear to represent the presence of active disease.

The general constitutional symptoms last only a few months and usually occur early in the clinical course of the disease; but at any time serious lesions such as those of the eye may develop, and those of the skin may prove most disfiguring. A certain number of patients—about 10% in the various series reported—develop frank tuberculosis. There is a warning in the change in the Mantoux reaction and in the deterioration in general health.

It is difficult to steer between the Scylla of pessimism that may be engendered by these reflections and the Charybdis of optimism that may be present when it is realized that the patient is not suffering from a more serious disease; but it seems reasonable to say that the prospect is good unless a small important organ becomes involved or the general health deteriorates in association with a change in tuberculin sensitivity.

#### Bibliography.

- Anning, S. T., Dawson, J., Dolby, D. E., and Ingram, J. T. (1948), "The Toxic Effects of Calciferol", *The Quarterly Journal of Medicine*, New Series, Volume XVII, page 203.  
 Lewis, N. (1950), "Ocular Manifestations of Sarcoidosis with a Description of Seven Cases", *THE MEDICAL JOURNAL OF AUSTRALIA*, Volume II, page 582.  
 Robinson, B., and Pound, A. W. (1950), "Sarcoidosis, A Survey, with Thirty Cases", *ibidem*, Volume II, page 568.

## THE SYNDROME OF CYCLIC ATTACKS OF ALLERGY IN CHILDHOOD.

By H. G. BREIDAHL,  
Perth.

A NUMBER of symptoms are described by writers as being common accompaniments of asthma in childhood, and these descriptions come from all parts of the world. These symptoms are also commonly observed in Perth, Western Australia, and one therefore assumes that the symptoms accompanying asthma here are not very different from those occurring elsewhere, but that they are, in fact, universal.

With increasing understanding of the management and control of childhood asthma, it has become increasingly apparent that these associated symptoms become lessened, or disappear, as the asthma itself comes under control. One has therefore gained the impression that they are possibly actual manifestations of the allergic attack, and perhaps just as characteristic of the allergic state as is the actual asthma.

In studying a number of histories one is struck by the remarkable constancy with which the majority of symptoms occur in a definite sequence in different patients, but during the actual history taking this sequence of events is only occasionally given voluntarily in its full and typical form; it is more common for it to be elicited by pertinent questioning. The full sequence is as follows. A prodromal period of irritability lasting about twenty-four hours is followed by coryzal symptoms for a similar period. During this period a dry cough gradually makes its appearance and merges into a period of distressed breathing. Pyrexia may be present from the onset of the coryza or may appear later. Anorexia is almost always present during the actual wheezing, but may also extend over a much longer period both before and after the wheeze. Abdominal pain and vomiting are not uncommon accompaniments, the latter usually occurring at the height of the wheeze. The wheezing lasts one to four days and is followed by a loose cough lasting another few days. The subsidence of the acute symptoms is followed by a period of intermission, which is variable in duration, but is commonly between two and four weeks; at the end of this period the irritability reappears and the whole cycle of events follows once more.

However, one must always bear in mind that "asthma is doubly capricious; the disease in general is capricious, and each case is capricious in itself", so that variations from the full syndrome are common, as well as variations in the attacks of subject. Nevertheless the frequency with which one can elicit a description of the attacks conforming in general outline to that given leads one to regard these visitations as worthy of being regarded as a definite syndrome.

The list of symptoms and the order in which they are most commonly met are as follows.

#### A Period of Irritability.

The period of irritability may last from two hours or so up to two days, but is most commonly described as lasting "half a day or the whole day". The tendency to weep easily is so commonly regarded as worthy of comment by mothers who have normal as well as asthmatic children that it appears to be a characteristic of the syndrome, although one must bear in mind that no one symptom is invariably present. A concomitant feature is the child's lack of amenability to suggestion; any and all suggestions are met with objections, and usually with tears. As one mother put it: "He is anti-everybody."

It is striking how often the mothers use the same words "teasy" and "weepy" to describe the child's mode of expression of his unhappiness. This is in contradistinction to adult asthmatics, a large number of whom are more resistant to tears than the normal person. Naturally the psychologists have attempted to discover an explanation for this commonly noted unhappiness and to link it as a causative factor with the allergic symptoms. If one delves

below the verbiage covering a number of the attempts to explain asthma as a somatic expression of some disturbance of the psyche, one is struck by the great diversity of the explanations offered, and it is obvious that the psychologists are far from being agreed on fundamental points.

However, there is one classical study to which they all refer, and that is the work of Rogerson in the middle 1930's, in which he studied intensively some 30 children suffering from the "asthma-prurigo" syndrome. His conclusions are freely quoted, and appear to have gained a wide acceptance as being applicable in a general sense to the great majority of cases of childhood asthma, if not to all of them. This applies especially to his findings that "over-anxiety in the parent appeared to contribute to the intensity of the attacks and that these children possessed certain common personality traits. Many of those who quote Rogerson appear to regard him as having proved conclusively that these two factors were potent causal agents in producing the asthmatic state in children. However, his own conclusion was that certain personality features and certain environmental difficulties were closely related to the actual attacks (as distinct from the allergic state), and he hoped that the facts as he presented them would help particularly to coordinate the physical and psychological aspects of treatment. In spite of his clear presentation and his high regard for the physical aspects of treatment, he continues to be quoted as if he regarded the psychological condition of the child and the over-anxiety of the parent as being the prime factors in need of treatment.

From the purely allergic point of view one finds much that may be questioned in applying the findings of this work to asthmatics as a whole. Firstly there is the very small number of cases studied. Secondly, although it is stated that the cases were unselected as far as Rogerson's own clinic was concerned, one feels that they were a selected class as far as other clinics were concerned—that is to say, a number of the patients, if not all, were recognized as being "psychological problems" before being referred to Rogerson's clinic. This is an important point which is often overlooked by those who quote Rogerson's conclusions as definitive and as being applicable to all asthmatic children. Again, parents who for years have been condemned never to know when they are to have a succession of disturbed and anxious nights attending to an obviously greatly distressed child must feel that it is unfair to have natural parental solicitude indiscriminately labelled "over-anxiety". One would like to know just when and where natural solicitude changes to "over-anxiety" and why a parent subjected to such a strain for years on end should not be expected naturally to show signs of anxiety. In other words, one recognizes that anxiety is commonly present in the parents, but regards it more as a result than as a cause of the child's condition.

The difference between the allergic viewpoint on the asthmatic child generally, and that of Rogerson on his patients particularly, is perhaps embodied in Rogerson's own reference to the type of child that he was handling. He makes the following statement:

If he is living in a state of tension to which his personality makes him especially prone, then he is likely to have an attack under the smallest provocation. If he is not in this condition he may withstand many stimuli.

The purely allergic viewpoint could be expressed by paraphrasing the foregoing statement in the following words: "If he is living in a state of continuous contact with his allergens, those allergens to which he is especially susceptible, then he is likely to have an attack under the smallest psychological provocation. If he is not in this condition (that is, if he is completely removed from his allergens), then he may withstand many psychological stimuli."

The allergist tends to take an unbelieving attitude towards the all-embracing claims of some medical psychologists, for the reason that modern methods of treatment of allergic children place him in the position of being able to relieve a great number of these children

of their symptoms by removing their allergic stimuli, without taking any steps particularly directed towards altering their state of tension or altering their psychological environment. Moreover, after a period of freedom from symptoms, he is able to induce recurrences of asthma by subjecting them to their former allergic stimuli. These recurrences may be induced despite the facts that the child himself appears to be much happier and less tense and that the parental "over-anxiety" has been quietened by the conviction that the child's condition is now under control. A large number of parents spontaneously refer to the great change in the temperament of their children once the allergens have been eliminated and the recurrent attacks have eased. The patient is described as being "a totally different child", and more than one mother has made remarks closely similar to the following:

I have four children, and have always realized that this one was different, and had to be taken more quietly; he was always more touchy and difficult to manage; and although I always knew this I did not realize just how great the difference was until now. Now that he has got over his attacks he is totally different, and is as happy and as easy to manage as the best of them.

This reference to increased happiness and companionship once the allergic stimuli have been removed is extremely common, so that one's personal experience covering some thousands of allergic children is directly opposed to the general application to all allergic children of Rogerson's conclusions derived from his study of a special group.

It would appear that the differences between the allergist and the psychologist devolve down to the old saw about the cart and the horse; but although the allergist may believe that the uncorrected allergic state is a dominant factor in determining the child's temperament, and that psychological factors, as a rule, act only as "triggers", still, nevertheless, he is aware that a vicious cycle may be set up in some cases, especially in children with inborn psychosomatic tendencies. In these cases it is not sufficient to break the cycle at one spot, namely, the allergy; one has to attempt to control the psychosomatic factor if one is to achieve any measure of success. In other words, the purely allergic view is that allergy is a somatic derangement influenced at times by psychical factors, and the psychological viewpoint is that allergy is a psychosomatic disorder, meaning thereby that the psyche completely controls the somatic element. In the type of case which we are considering, long-continued repetition of the syndrome may break down the resistance of both parent and patient, so that finally attacks may come on whenever there is a clash of temperaments, quite apart from the cyclic attacks. Despite this, one is surprised at the frequency with which this type of temperamental attack ceases when elimination of the offending allergen has been achieved.

#### A Period of Coryzal Symptoms.

Frequent association with patients having nasal symptoms makes one realize that the nasal mucous membrane is capable of producing only three symptoms when it is subjected to the common irritants of everyday life. Hence it is natural that an allergic reaction in the nasal mucous membrane should demonstrate its presence by some combination of the three symptoms in question—namely, blocking, rhinorrhœa and sneezing—and further, that no matter what form the combination takes, it is indistinguishable from the onset of common coryza. This is also a combination of the three main symptoms of blocking, rhinorrhœa and sneezing, and the question is often raised, "when is a 'cold' infective in origin and when is it allergic? How do you distinguish between the two?" The answer is that in many cases it is very difficult—in fact it is almost impossible—to do so on symptoms alone, and more especially so in the early stages of coryza, which is indistinguishable in many cases from acute allergic rhinitis. Visual examination of the nasal mucous membrane may not help, as an allergic nose often looks remarkably normal, and the membrane in the early stages of a coryzal attack

may look "typically allergic"; resort has to be made to the history and to the microscopic examination of nasal smears. If the story is one of frequently repeated "colds" or of the patient's often having colds when the other members of the family are free, then the likelihood is strongly in favour of allergy—in fact, it is almost certainly so. The second diagnostic point is the discovery of eosinophile cells in diagnostic amounts in the nasal secretion—a technical procedure which, like all laboratory procedures, requires a considerable degree of experience in the technique before a reliable report can be given. However, in the cases under discussion the patient had these repeated "colds", the symptoms of which in these children are most commonly blocking, rhinorrhoea and sneezing in that order. As the "cold" develops, the tendency to weep passes over, and although the irritability may remain, it tends to be more of a slightly "peevish" type.

An important variation of the syndrome is for it to reach its climax at this stage and not to proceed beyond the "cold in the head", perhaps followed by a cough. The child is brought to the medical practitioner with the history of recurrent colds, but with no mention of a wheeze. Such a history of recurrent "colds" should always make one suspect an allergic basis.

All allergists are familiar with histories such as "the onset of the asthma was preceded for some years by recurrent colds—he had a cold when no one else in the family had one". When these recurrent colds finally terminate in attacks of asthma, some accept the thesis that recurrent infections are the cause of the asthmatic attacks. However, as it is possible in the majority of cases to control both the recurrent colds and their attendant asthmatic attacks by anti-allergic measures, one believes that they are both allergic in origin. This does not rule out the possibility that an occasional respiratory infection may precipitate an attack of asthma, but these occasional infections are in a different category from the fairly regularly recurring attacks of coryzal symptoms. The parent will usually recognize this fact and remark on the difference between the old familiar recurrent "cold" and the occasional cold which accompanies an epidemic infection which has also affected other members of the family. Others remark on the fact that they now "never get an ordinary cold", and this resistance to common infections appears to be characteristic of a large group of allergic subjects.

#### Pyrexia.

Pyrexia is sometimes apparent in the coryzal stage, but may not appear till later. The conception that pyrexia is a common accompaniment of an allergic reaction is taking some time to be appreciated by the profession generally; but we are becoming accustomed to it when we meet the pyrexia which often accompanies a penicillin reaction. We first became familiar with this allergic type of pyrexia when encountering that caused by the earlier sulphonamide drugs; it was at first puzzling, but later recognized as part of an allergic reaction.

It is difficult to get a picture of the complete temperature chart of these children, as even those parents who use thermometers freely do not often record the readings. However, a large number of children admitted to hospital with asthma have a characteristic temperature chart showing an initial temperature of 100° to 101° F., sometimes as high as 103° F., usually dropping in a straight inclined line to normal within the twenty-four hours, but occasionally taking forty-eight hours to come down. This has been noticed by others, but has been passed over as being a common occurrence in children admitted to hospital for any complaint not usually associated with a rise in temperature. When one compares the charts of a large number of asthmatic children who each have had several admissions to hospital, two points of interest are disclosed. Firstly, the charts of different patients admitted to hospital with asthma are remarkably similar; secondly, the charts of the one patient admitted to hospital for complaints other than asthma differ from those when he is admitted to hospital with asthma alone. In other words, the asthmatic temperature chart as seen in hospital tends to follow a definite, although simple, pattern. There is a third point of interest

in connexion with this febrile reaction—namely, that the temperature charts of the days before the introduction of sulphonamides and penicillin are indistinguishable from the present-day charts, now that sulphonamides, and at times penicillin, are given to most children who have a raised temperature and chest signs. Further, to some of them, although the temperature has fallen within the usual forty-eight hours, the full course of sulphonamides and penicillin has been administered.

On meeting for the first time a child with a chest full of moist sounds and a temperature perhaps as high as 103° F., the general practitioner or hospital resident medical officer is undoubtedly activated by the desire to play for safety; but when a history of repeated attacks of a similar condition is obtained, it is unnecessary, and far from advisable, to submit an allergic child to intermittent courses of the sulphonamide drugs. After the administration of these drugs the temperature rapidly falls, but it is desired to stress the point that it did so just as quickly before the days of the sulphonamides. A danger lies in the possible development of serious allergies to these drugs in later life, especially those of the *periarteritis nodosa* type.

#### The Early Cough.

The cough is almost always dry and unproductive in the stage before the appearance of the wheezing. If some cough persists between the attacks, its exacerbation at this stage may take a more moist form than in the typical syndrome, or the mother may say: "His cough, instead of being loose, as it usually is, now becomes hard and dry"; but in the typical case the cough has disappeared in the interval succeeding the last attack, and it now reappears in a dry, hacking, worrying and persistent form. At times it becomes less prominent as the wheezing comes on, being still present, but overshadowed by the respiratory distress; at other times it is the combination of persistent cough and wheeze which forms the most distressing period of the syndrome. Its duration is variable, but it is commonly a few hours from the time of onset till the wheeze becomes well established.

#### Anorexia, Abdominal Pain and Vomiting.

Symptoms referable to the digestive system form the most variable group in the syndrome with regard to their frequency of appearance, their intensity and their timing. Anorexia is the most regular accompaniment of the attack, but varies somewhat in its time of onset. In some cases it is the first indication that an attack is impending, appearing before the irritability; more frequently it makes its appearance at about the same time as the latter. It may be delayed until the wheezing is about to start, but is invariably present during the stage of the wheezing itself. The appetite may return heartily as soon as the wheezing is over, or its return may be a long-drawn-out process and reach completion just when it is time for the next attack to start.

Vomiting is a fairly common accompaniment of the asthma, and it is difficult to state at what stage it most commonly appears, but it is usually some time after the distressed breathing has made its appearance. The vomiting is usually not repeated, but it may persist and may be almost as distressing as the difficulty in breathing. By emptying the bronchi the single vomit is, of course, often welcome as affording some relief from the distressed breathing. Some degree of abdominal pain is commonly complained of; again, this may be a prominent characteristic of the attacks, and some parents are more concerned about it than they are about the "wheezy sort of cold that he always gets with it". As with many pains in young children, the localization of this pain is difficult; but older children often locate it rather high in the epigastrium and younger children frequently point to the navel. The vomiting and pain are not necessarily caused by food allergens—they may be caused by inhalants as well, and are apparently part and parcel of the general allergic reaction. As a variation of the typical syndrome they may overshadow the other symptoms; one may meet a child with the history of repeated "colds" associated with

mild fever and severe abdominal pain and vomiting, and perhaps a slight wheeze towards the end of the attack. It is important that this type of attack should be correctly diagnosed and surgery avoided.

#### The "Wheeze".

The types of breath sounds met with in acute asthma of young children are almost invariably more moist than those in the typical acute attack of an adult. Occasionally one meets patients at an early age with a "dry" wheeze—that is, with no râles but only high-pitched rhonchi audible; but these are exceptions; the general rule is to meet a chest full of all possible varieties of moist sounds. Moreover, the rhonchi are as prominent on inspiration as they are on expiration. This moistness of the asthma of childhood, combined with the presence of inspiratory rhonchi and a raised temperature, often leads to the incorrect diagnosis of infective bronchitis. The difficulty appears to be caused by the presence of the clinical signs of pyrexia and râles, together with the presence of inspiratory rhonchi as noisy as the expiratory ones, giving the impression that an infective process is present. The period of wheeziness varies in different cases, but usually is not longer than four or five days, most commonly thirty-six to forty-eight hours.

#### The Late Cough.

As the wheezing subsides, cough again becomes the most prominent symptom, and it is now commonly described as "loose" with "a fair amount of phlegm", and only rarely does it revert to the dry, hacking cough of the onset. It is troublesome for the first day or two of the convalescence, but usually it has completely cleared by the end of another two or three days. However, it is not uncommon for it to persist for a week or two, the period varying somewhat in proportion to the length of the next period.

The persistence of a daily productive cough, even though it is unobtrusive, should always raise the suspicion that bronchiectasis may be present. Naturally not all the allergic children who have a loose cough persisting between their attacks of asthma are also suffering from bronchiectasis; but an appreciable number of these children with a fairly typical recurrent syndrome such as has been described, have a daily soft productive cough that may not necessarily cause much concern to the parents, although, of course, it often does so. They may regard it as "due to his asthma" or "part of his general chesty condition"; but on investigation one finds some degree of bronchiectasis present. Its presence always increases the difficulty in controlling the recurrent asthmatic attacks.

#### The Period of Intermision Between Attacks.

The interval between attacks is variable in duration, but at times it is remarkably constant—so much so that some mothers are able to calculate with a fair degree of accuracy when the next attack will come, and it is commonly a period of from two weeks to four weeks. In any one case the periods may be shorter in winter than in summer, or they may be of about the same length throughout the year. During this intermission the child regains weight which has been lost during the attack, only to lose it again at the next bout. Some allergic children are difficult to manage throughout the whole year; others again are bright and cheerful in the intervals between attacks, becoming irritable only at the onset of the cycle.

The symptoms in the period of intermission appear to vary more with each subject than does the actual attack itself, the latter following a fairly easily recognizable pattern, whereas in the interval of freedom the personal differences between subjects become more apparent. A number of subjects have signs and symptoms of perennial allergic rhinitis and possess what was once called the adenoid facies but is now becoming recognized as the allergic facies. A minority have no observable signs or symptoms between attacks, and there are the intermediate patients who have a more intermittent type of rhinitis than the truly perennial type.

#### Conclusion.

Although not all asthma in childhood follows the cyclic pattern, the above is a common recurrent sequence of symptoms of childhood allergy which we see in Perth, and from the literature—both in text-books and in journals—one feels certain that it is met with in other parts of the world, although it is not referred to as a syndrome. Every general practitioner and paediatrician will recognize at once many of the symptoms as being commonly met with in children, but may not have recognized that they are commonly allergic in origin.

Finally, the diagnosis of asthma in children and infants is still far too frequently missed, not because it is not thought of, but because of the misleading significance placed upon the presence of coryzal symptoms and a raised temperature, together with râles in the chest.

#### Summary.

1. A frequently occurring sequence of symptoms accompanying asthma in childhood is described.
2. It is suggested that this is a definite syndrome of cyclic attacks of allergy in childhood.
3. Attention is drawn to the fact that psychological disturbances and febrile coryzal attacks are often quoted as causes of recurrent asthma. It is suggested that as these manifestations become much less pronounced or even disappear when the asthma is controlled by the removal of allergens, they are accompaniments and not causes of the asthmatic attack.
4. Certain variations of the syndrome are mentioned, a common one being for the attack to reach its climax at the febrile coryzal stage without the development of asthma. A less common but very important variation comprises those cases in which severe abdominal pain and vomiting dominate the clinical picture.
5. The danger of the free and repeated administration of sulphonamides to allergic children is stressed.
6. The possible presence of a mild degree of bronchiectasis should not be overlooked in the case of a child with cyclic attacks of asthma.

#### References.

- Abramson, H. A. (1948), "Psychodynamics and the Allergic Patient", The Bruce Publishing Company, St. Paul and Minneapolis.
- Barnett, E. J., and Carnahan, H. D. (1939), "Nasal Allergy in Children", *Archives of Otolaryngology*, Volume XXX, page 247.
- Bray, G. W. (1937), "Recent Advances in Allergy", Third Edition, J. and A. Churchill, Ltd., London.
- Clarke, T. W. (1944), "Allergy of the Central Nervous System", *Annals of Allergy*, Volume II, page 189.
- (1950), "The Relation of Allergy to Character Problems in Children. A Survey", *ibidem*, Volume VIII, page 175.
- Clein, N. W. (1949), "Allergy and the Tonsil Problem in Children", *Annals of Allergy*, Volume VII, page 329.
- Coke, F. (1923), "Asthma", John Wright and Sons, Ltd., Bristol.
- Cooke, R. A. (1947), "Allergy in Theory and Practice", W. B. Saunders Company, Philadelphia and London.
- Craddock, W. H. (1949), "Perennial Nasal Allergy. A Review of Eighty Cases", *Annals of Otolaryngology and Laryngology*, Volume LVIII, page 671.
- Derbes, V. J., and Englehardt, H. T. (1946), "The Treatment of Bronchial Asthma", J. B. Lippincott Company, Philadelphia.
- Feinberg, S. M. (1946), "Allergy in Practice", Second Edition, The Year Book Publishers, Inc., Chicago.
- Flensborg, E. W. (1950), "Infective Allergy. A Common Factor in Children's Asthma", *Acta Allergologica*, Volume III, page 56.
- Hansel, E. K. (1936), "Allergy of the Nose and Paranasal Sinuses", The C. V. Mosby Company, St. Louis and Minneapolis.
- (1949), "Allergy in Relation to Otolaryngology", The Bruce Publishing Company, St. Louis and Minneapolis.
- Miale, J. B. (1949), "The Manifestations and Mechanisms of Vascular Allergy. A Critical Review", *Annals of Allergy*, Volume VII, page 124.
- Mirvish, I. (1942), "Differential Diagnosis and Treatment of Asthma in Childhood", *South African Medical Journal*, Volume XVI, page 431.
- Ratner, B. (1950), "Asthma in Children, Salient Diagnostic Problems", *The Journal of the American Medical Association*, Volume CXLII, page 538.
- Rogerson, C. H. (1937), "The Psychological Factors in Asthma-Prurigo", *The Quarterly Journal of Medicine*, New Series, Volume VI, page 367.

Rowe, A. H. (1937), "Clinical Allergy", Baillière, Tindall and Cox, London.

— (1948), "Fever due to Food Allergy", *Annals of Allergy*, Volume VI, page 252.

Salter, H. H. (1868), "Asthma: Its Pathology and Treatment", Second Edition, J. Churchill and Sons, London; quoted by Vaughan, W. T., and Black, J. H., *loc. citato*.

Tuft, L. (1937), "Clinical Allergy", W. B. Saunders Company, Philadelphia and London.

Urbach, E., and Gottlieb, P. M. (1946), "Allergy", Second Edition, William Heinemann, Ltd., London.

Vaughan, W. T., and Black, J. H. (1948), "Practice of Allergy", Second Edition, The C. V. Mosby Company, St. Louis.

## Reviews.

### CHAMBERS'S ENCYCLOPÆDIA.

AN event of the greatest importance to British education and literature is the appearance of a "new edition" of "Chambers's Encyclopædia".<sup>1</sup> This work is called a new edition because it is in no sense a revision of the "Chambers's Encyclopædia" of early days. It is a post-war production and has been entirely rewritten. "Chambers's Encyclopædia" originated in Edinburgh. Here William Chambers and his brother Robert started a book-selling business in a small way, and from selling books gradually became publishers. Their first encyclopædia was published between the years 1859 and 1868 in 520 weekly parts at three-halfpence each. From the article entitled "Encyclopædia" in this new publication we read that the Chinese invented the encyclopædia, the earliest on record being produced in the fourteenth century. Encyclopædias are now part of the normal equipment of educated people, and for this reason the new publication will be welcomed. The well-known "Encyclopædia Britannica" has passed into American hands and is now published in Chicago. "Chambers's Encyclopædia" is an entirely British product, and both the history of its production and the material which it contains are full of interest.

The first thing to be noted about the new publication is that the managing editor is a woman, Mrs. M. D. Law. She has been assisted by a board of advisory editors. Among these are Dr. Hugh Clegg, editor of the *British Medical Journal*; Professor Allan Ferguson, assistant professor of physics in the University of London; Professor H. Munro Fox, professor of zoology in the University of London; Professor Aubrey J. Lewis, professor of psychiatry in the University of London; and Professor R. J. S. McDowall, professor of physiology in the University of London. In the preface the general editor claims that she and the contributors alike have had the advantage, not always fully understood, of working for an enterprise founded on a commercial basis. The aim, therefore, was to make a successful work; and "successful in this field is necessarily synonymous with good". It is stated that the publication is primarily a British production, and therefore no doubt it reflects to some extent the intellectual atmosphere of post-war Britain. This, it is explained, implies belief in international cooperation rather than nationalistic isolationism, and in freedom of speech and worship, information and association rather than in any totalitarian conception. The editor states that if these basic ideas should anywhere be regarded as prejudices, she and her contributors will cheerfully put up with this criticism. If occasionally "a bee be heard to buzz in an academic bonnet, the work is all the livelier on that account". "Chambers's Encyclopædia" is intended in the first place for the educated layman who has some general grounding in a variety of subjects, from which he can proceed to more exact and detailed information in a special field. In certain scientific subjects a more specialized knowledge and greater application are required, and here we read that every effort has been made to see that these contributions are understandable without sacrifice of authenticity or authority. The work comprises a limited number of long main articles, a substantial number of shorter articles describing in detail the principal points of the main articles, and a large number of brief descriptive entries.

<sup>1</sup> "Chambers's Encyclopædia", edited by Mrs. M. D. Law, with a board of advisory editors; 1950. London and Sydney: George Newnes, Limited. In XV volumes (Volumes I to XIV, text; Volume XV, atlas maps, index and aids of reference). 10½" x 7½", pp. an average of 832 per volume, with 5000 illustrations, many in colour. Price: £55.

The value of the work is much increased by the inclusion of a full index in the last volume. This makes it possible for the reader to find information which may not be available in the articles which he has chosen to read. Thus, under "Medicine" we have references to Babylonian medicine, to chemistry and medicine and to essential oils used in medicine; in another place reference to the ethics of experimental treatment. Separate sections are devoted to hygiene, to medical libraries in England, to pharmacology as a branch of medicine, to physiology, to physiotherapy, to tropical medicine, and to the place of woman in the medical profession. Fourteen volumes are devoted to the encyclopædia proper. The last volume deals with abbreviations, atlas maps, an atlas index and gazetteer, a list of contributors, a classified list of articles, and finally the general index.

In compiling a work of this kind an editor must experience great difficulty in deciding what to include and what to omit. In the present instance a certain amount of space was available. Certain persons were chosen to deal with certain aspects of the work, and a definite amount of space was allotted to each. Sometimes readjustments had to be made and compromises effected. A critic going through this or any other similar work will, no doubt, find many subjects or aspects of subjects which in his opinion should have been included. On this point opinions are bound to differ. The article on Australia covers some thirty pages, and is followed almost immediately by a five-page article on Australian literature. The article on Australia begins with a small introductory passage, and then follows sections dealing with physical factors, economic factors, social factors, political factors, anthropology, archaeology and history. In the section on physical factors, physical features, drainage, climate, natural vegetation and fauna are described. Under the heading of economic factors there are references to agriculture and land use, industry and manufacture, natural resources, foreign trade, communications, and in regard to these a good deal of detailed information is given. Under social factors there is reference to population and to religion; education is described in approximately a page of letterpress, and then come references to social services, to wages, hours of work and cost levels. Under political factors reference is made to government, both national and local, to justice, finance and banking, and defence. The section on anthropology is devoted entirely to the Australian aborigines. In turn are discussed physique and origin, economy and organization, religion, magic, warfare, material culture and the effects of European contact. The section on history is good. First comes a reference to early colonization from 1788 to 1840. This is followed by a section dealing with economic growth and self-government, and a section under the heading "Formation of the Commonwealth". This should be of interest particularly at the present time, in view of the celebration in 1951 of the jubilee of the foundation of the Commonwealth. The final section deals with Australia since 1914. Here are discussed the first World War, political and economic experiments and the second World War. The section on education is contributed by Dr. K. S. Cunningham, director of the Australian Council for Educational Research. It is a somewhat uneven section. After reference to schools, we read that every State has its own university. The reference to universities consists of exactly seven lines. Here we read that those of Sydney, established in 1850, and of Melbourne, established in 1855, are important institutions by world standards. We are also told that the universities are financed in approximately equal proportions by State grants, by endowments, and except in the case of Western Australia, which has a free university, by fees from students. The scanty information on Australian universities is not helped much by reference to the article on universities in Volume XIV. Here a small section deals with Australia and New Zealand. Australian universities are described shortly in fifteen lines. The oldest and largest, we are told, is the University of Sydney with ten faculties and six colleges, and Melbourne, with five residential colleges and eleven faculties, is next in order of time and numbers. Adelaide, Queensland and Western Australia are considerably smaller universities, and Tasmania is the smallest of the group. In the article on education in Australia exactly seven lines also are devoted to the Australian Council for Educational Research. The article on Australian literature is well set out and appropriate. Strangely there is no reference to Australian painting, Australian music or Australian sculpture.

Separate entries have been made for many of the Australian statesmen and politicians and for other public persons. To none of the names that have been included can any exception be taken. At the same time there are certain omissions which may occasion surprise to some people.

There is no separate biographical entry for Sir T. W. Edgeworth David, for Sir Charles Kingsford Smith, or for General Sir John Monash. Matthew Flinders receives a special entry, but not George Bass; Michael Thomas Bass, the British brewer, is specially mentioned. Constant Lambert, the musician, receives an entry, and is stated to be "son of a painter"; how the shade of George Lambert would resent this! Norman Lindsay, the artist, Sir Charles Nicholson, founder of the Nicholson Museum, Alfred Hill, the musician, and Joseph Bancroft, of filarial fame, are not mentioned.

The field of medical science is well covered. Special articles are devoted to many medical subjects, such as anaesthesia, physiology, surgery, pathology and so on, and to the separate systems and their diseases, for example, the cardio-vascular system and the urinary system. With each of these articles a bibliography, which will be found useful, is given at the end. The names of contributors include those of men and women who have attained positions of eminence in British medicine. The eminence of the medical contributors should be emphasized, because it is an indication of the care with which contributors to non-medical sections have been chosen.

It is not our intention to review any of the special articles on branches of medicine or diseases, for these articles are likely to appeal to non-medical persons rather than to those who are medically trained. A medical practitioner who wishes to obtain information on the latest work in the special branches of medicine in which he is interested will seek it in year books and other publications which are continually kept up to date. The medical reader of this encyclopaedia will be more interested in subjects of general concern, such as art, sculpture, architecture, and the thousand and one other subjects of general interest with which educated people usually concern themselves. Obviously these cannot be reviewed. It must suffice to point out that every conceivable subject is included, that the letterpress is well documented and that the illustrations are all that could be desired.

The general editor of the work is to be congratulated on the result of her labours and the publishers on their fine production. The post-war difficulties encountered in the publishing of this work must have been enormous. There is no doubt that it will be acclaimed everywhere as an outstanding achievement in British literature and will be widely sought for its intrinsic worth.

### INFANT NUTRITION.

DR. F. W. CLEMENTS, well known at Canberra and now at Geneva as Chief of the Nutrition Section of the World Health Association, has published an informative book, "Infant Nutrition: Its Physiological Basis", which commands our respect.<sup>1</sup> He has marshalled a valuable collection of data and the basis is substantial. He has made a good case for the attitude that scientific dietetic principles are fundamentally unitary with special application to this or that group of human beings in health or in diseased states or even of wider application to all forms of animal life.

Infant nutrition demands consideration as one of these groups, and improvement in the soundness of the scientific basis carries with it important potentialities for the subjects well worthy of the utmost study by all those who, like doctors, are consulted by lay members of the community.

The plan of the book is a division of the subject matter into six parts. In the first, Dr. Clements has set out a number of relevant facts about tissue metabolism. This is followed by a study of fetal nutrition which is unusually well presented. The next part of the book contains an up-to-date summary of what is known about the chemical and physical properties of human milk. We then find an important section on the physiology of digestion and water balance in the young infant. Part V contains the facts necessary for deciding upon the main nutrients qualitatively and quantitatively. The concluding section of the book is a discussion of the clinical application of the physiological principles and of some of the deficiency states which are liable to occur in the early stages of life.

The utility of the book is considerably enhanced by 14 clear charts and 42 tables in which pertinent data are summarized and presented attractively to catch the eye or to

<sup>1</sup> "Infant Nutrition: Its Physiological Basis", by F. W. Clements, M.D., D.P.H., D.T.M.; 1949. Bristol: John Wright and Sons, Limited. London: Simpkin Marshall, Limited. 8½" x 5½", pp. 260. Price: 21s.

be used for the preparation of lantern slides for teaching and demonstration.

Dr. Clements has rounded the book off with a generously extensive group of references at the end of each of the six sections and by a good index which simplifies the finding of information required by the user from time to time. The publishers deserve commendation for the format, which leaves nothing to cavil about and makes the volume one which anyone interested would be pleased to have and to use.

### Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"The Surgical Clinics of North America" (issued every two months); 1950. Philadelphia and London: W. B. Saunders Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. Mayo Clinic number. 9" x 6", pp. 298, with 85 illustrations. Price: £7 5s. (cloth binding) and £6 (paper binding) per year.

Contributors to this number are either in the Mayo Clinic or on the Mayo Foundation for Medical Education and Research. The first fourteen articles are a symposium on abdominal surgery; the remaining nine deal with other subjects.

"Man and His Environment", by A. Leslie Banks; 1950. London: Cambridge University Press. Melbourne: Georgian House Proprietary, Limited. 7½" x 5", pp. 16. Price: 1s. 6d.

An inaugural lecture by the Professor of Ecology in the University of Cambridge.

"Favourite Prescriptions", edited by Sir Heneage Ogilvie, K.B.E., D.M., M.Ch., F.R.C.S., and William A. R. Thomson, M.D.; 1950. London: The Practitioner. 9½" x 6½", pp. 84. Price: 4s.

Published originally as a symposium in *The Practitioner* of July, 1950.

"The Physician Examines The Bible", by C. Raimor Smith, B.S., M.D., D.N.B.; 1950. New York: Philosophical Library, Incorporated. 8" x 5½", pp. 408. Price: \$4.25.

The book deals with the Old Testament, the New Testament and the Apocrypha and their medical subjects.

"The 1950 Year Book of Medicine (May, 1949-May, 1950)", edited by Paul B. Beeson, M.D., et alii; 1950. Chicago: The Year Book Publishers, Incorporated. 7½" x 5", pp. 836, with many illustrations. Price: \$5.00.

One of the "Practical Medicine Series of Year Books".

"Group Life: The Nature and Treatment of Its Specific Conflicts", by Marshall C. Greco; 1950. New York, Philosophical Library. 8½" x 5½", pp. 388. Price: \$4.75.

An attempt "to explain neurotic and allied difficulties as well as their treatment from the point of view of an historical, group-life approach".

"Principles and Practice of Surgery", by J. K. Berman, A.B., M.D., F.A.C.S.; 1950. St. Louis: The C. V. Mosby Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. 9½" x 6½", pp. 1396, with 429 illustrations. Price: £7 17s. 6d.

The book "is written with the idea of correlating the basic sciences with the fundamental principles of surgery".

"The Heights and Weights of Boys and Girls", by A. Sutcliffe, M.A., B.Sc., and J. W. Canham, M.A.; 1950. London: John Murray. Melbourne: Geoffrey Camberidge, Oxford University Press. 10½" x 7", pp. 90. Price: 18s. 3d.

Intended for the school medical officer and the teacher of physical education.

## The Medical Journal of Australia

SATURDAY, DECEMBER 30, 1950.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: surname of author, initials of author, year, full title of article, name of journal without abbreviation, volume, number of first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

### THE RETIREMENT OF PROFESSOR PETER MACCALLUM.

At the end of this academic year Professor Peter MacCallum will retire from the chair of pathology of the University of Melbourne. He was appointed to the chair in 1924 as successor to the late Sir Harry Brookes Allen. Since that time he has held the post with such distinction and has earned the appreciation and gratitude of the medical profession to such a degree that the occasion cannot be allowed to pass without comment. The Hippocratic oath shows that from the earliest days teachers in medicine have been revered and held in honour; sometimes these sentiments are coloured with an enduring affection. When this happens—and there is abundant evidence that it has happened with Professor MacCallum—the attitude of the man himself and his personal qualities are the response-provoking antigen. The study of medicine is never completed, and once a youth has become a medical student he remains a student all his life. The medical teacher is thus at once student and teacher. When he teaches his students he puts them on the right track; he does not remain afar off and direct them, as it were, *ex cathedra*. He travels with them, always pointing the way ahead, but ahead of himself as well as of them. When the time comes for him to lay aside his role it is natural that those who have journeyed with him under his leadership and guidance should seek for some way of showing their regard for him. Professor MacCallum's colleagues and friends have given him a *Festschrift*<sup>1</sup> and the University of Melbourne has admitted him to the degree of Doctor of Medicine, *honoris causa*. Further, in his reply at the conferring of the degree, Professor MacCallum said that friends had commissioned the artist, Max Meldrum, to paint a portrait of him. This threefold event will give satisfaction to members

of the medical profession in every State of the Commonwealth.

The *Festschrift* is a handsome volume of some 350 pages and comprises 22 "Studies in Pathology". It bears the following dedication:

PROFESSORI DOCTISSIMO  
SOCIO AMICOQUE CARISSIMO  
PIETRO MACCALLUM  
IAM RUDEM POST ANNOS XXV ACCIPIENTI  
DISCIPULI  
GRATIAM PLENAM HABENTES  
DEDICANT  
TPOΦEIA  
A.D. MCML

Facing the preface we find the following quotation from Francis Bacon:

... Truth, which onely doth ludge it felfe, teacheth, that the Inquire of Truth, which is the Love-making or Wooing of it; The knowledge of Truth, which is the Prefence of it; and the Beleefe of Truth, which is the Enjoying of it; is the Soueraigne Good of humane nature.

The book has been edited by E. S. J. King, T. E. Lowe and L. B. Cox and the papers have been contributed by students and associates of Professor MacCallum. Two—Professor G. R. Cameron and Professor W. B. Wartman—were associated with him for only a short time, the former at the beginning of Professor MacCallum's term of office, and the latter during the years 1942 to 1944 when the Fourth General Hospital of the United States Army was stationed in Melbourne. Most of the other authors have been students of Professor MacCallum and all have been attached to his department since graduation. The following are the contributors: E. S. J. King, G. R. Cameron, R. Douglas Wright, R. A. Willis, Ian C. Heinz, T. E. Lowe, William B. Wartman, H. F. Bettinger, G. S. Christie, Reginald Webster, W. McI. Rose, J. W. Perry, R. Motteram and W. E. King, E. W. Bate, J. D. Hicks, Leonard B. Cox, J. J. Billings, A. V. Jackson, E. E. Dunlop, John Hayward, G. G. Godfrey, K. M. Bowden. The subjects of the essays need not be enumerated; it should be recorded, however, that, as stated in the preface, they "give some indication of the characteristics of the school as influenced by MacCallum". He has always held that pathology is but a part of biology and that information from every part of the biological field should be mustered and its significance for pathology assessed. Pathology has never been to him merely a collection of post-mortem specimens. We read that Professor MacCallum's breadth of outlook has been shown by "attention to experimental embryology, a curiosity regarding veterinary pathology, as great an interest in physiology as morphology and a mindfulness of the clinical implication of problems". Clearly the path ahead to which he pointed for himself, his associates and students was not the rut of a dull routine, but had purposeful and significant digressions.

In the *University of Melbourne Gazette* of November 10, 1950, is an account of the conferring of the degree of Doctor of Medicine on Professor MacCallum. The ceremony was part of the conferring of medical degrees on graduands on October 24. The Vice-Chancellor, Sir John Medley, himself shortly retiring from office, conferred the degrees. The citation with which Professor MacCallum was presented to the Vice-Chancellor was read by Professor Douglas Wright, Dean of the Faculty

<sup>1</sup> "Studies in Pathology: Presented to Peter MacCallum", edited by E. S. J. King, T. E. Low and L. B. Cox; 1950. Melbourne: Melbourne University Press. 8½" x 5½", pp. 362, with illustrations. Price: 35s.

of Medicine. He referred to Professor MacCallum's graduation in arts and science at the University of New Zealand, to his medical course at the University of Edinburgh and to his service in World War I with the Royal Army Medical Corps when he was decorated with the Military Cross. Professor MacCallum had displayed wisdom and courage in his service to the University of Melbourne, and his school "soon became the nursery of young medical graduates who needed scientific guidance and encouragement". Five present-day holders of university chairs had been trained by him in as many years. He had become the "binding and motive force" of the Melbourne Medical School. One point in Professor Wright's citation to which special attention should be directed is the fact that Professor MacCallum took a full share in the corporate life of the medical profession. He became a member of the Council of the Victorian Branch of the British Medical Association and filled the office of president; he is a member of the Medical Board of Victoria and of the Anti-Cancer Council. The clinic of the Cancer Institute has been named the Peter MacCallum Clinic. Professor Wright said that Professor MacCallum's contributions to scientific literature had continued throughout his career and added that it was "perhaps ironical that the last contribution from this warm-hearted man was a cold-blooded bacillus". Professor MacCallum, having been formally admitted as Doctor of Medicine, addressed the company in a speech which created a profound impression. He said that honours that would warm the heart of any man had lately crowded upon him. He thanked the university for the honour it had done him. A man in the circumstances in which he found himself was apt to be more conscious of aims missed than achieved, and to wish that the bounty it was his to distribute had been more abundant. He thanked his colleagues for all that they had helped him to do. Professor MacCallum, after paying a tribute to Sir John Medley, who was shortly leaving the University of Melbourne, addressed the graduands and said: "This is our great day—yours and mine." He spoke of the members of the medical profession as a dedicated fraternity and on the need to have a feeling of dedication, and he described the medical man as "the Good Samaritan, highly trained". The satisfactions which the newly qualified would obtain would be the good they were able to do and the blessings they would be able to confer.

In wishing Professor MacCallum continued happiness and many years of useful activity, we may reflect that friendship has been called the wine of life. We may thus congratulate him on his well-stocked cellar, and continuing the metaphor, recall the words of Byron:

Long life to the grape! for when summer is flown  
The age of our nectar shall gladden our own.

## Current Comment.

### THE SILICONES IN MEDICINE.

THE silicones, which belong to the group of substances commonly called plastics, are organic derivatives of silica with remarkable and in many ways unique properties. First brought forward about the end of 1944, they have

been known in the chemical and industrial field for their stability and unusual characteristics, but it is only recently that their potential usefulness has been realized. Their possibilities in medicine, as suggested by R. de R. Barondes, W. D. Judge, C. G. Towne and M. L. Baxter,<sup>1</sup> are striking. The first idea of what might be done with them came with the development by J. F. Hyde, of the Corning Glass Works, of the first flexible silicone resin to seal the voids in fibrous glass cloth. Later a research group at the Mellon Institute developed a series of water-white silicone fluids with properties unlike those of any other liquid. These liquids, known as DC200 fluids, have a wide range of viscosities and remarkable stability. They have a more nearly constant viscosity over a wide temperature range, are more resistant to oxidation and are more water-repellent than other fluids. They are non-corrosive to metals and as a rule are unaffected by them; in general, they have no effect upon conventional rubbers. Their other chemical properties and industrial uses we may pass over to consider their pharmacological qualities. Barondes and his colleagues state that the silicone fluids they have investigated are practically inert physiologically, water-insoluble, resistant to oxidation and chemical attack, generally non-volatile and non-crystalline, and non-toxic to the body tissues. When they were fed to laboratory animals in concentrations as high as 2% no ill effects were noted. Intradermal, subcutaneous or intramuscular administration has produced little or no reaction, and intravenous administration of a suspension of silicone in acacia-dextrose solution has provided no evidence of toxicity, though its ultimate fate and effects need further investigation. Their preliminary studies of these silicone fluids have suggested to Barondes and his colleagues great possibilities for their application in medical, dental, pharmacological and allied fields. Being inert agents, the silicones in themselves have no therapeutic properties, but the following are some of the roles suggested for them: as vehicles for suspensions of barium sulphate, iodine and the like used as contrast media in outlining internal cavities and passages; as iodized silicones in bronchographic studies, in lung-collapse therapy, in the joints (for example, to maintain separation of the knee joint and prevent ankylosis), and injected intraperitoneally to prevent adhesions; as a vehicle for medicaments, dressings *et cetera* applied externally, especially when other vehicles are contraindicated or not tolerated; as a body protective against irritating, noxious and toxic agents; as a substitute for harmful laxative mineral oils that cause annoying leakage and adversely affect oil-soluble vitamins; as a replacement for paraffin baths; as a means of waterproofing materials, such as plaster casts; as a vehicle for administering anaesthetics about a nerve trunk, and antibiotics when delayed systemic absorption is desired. Foaming of material is suppressed by as little as a few parts per billion of antifoam A silicone ("Tympanol"), and this property has already been used by veterinary practitioners in the treatment of cattle with tympanites—a condition of severe and fatal bloating that follows the eating of legumes of high moisture content and grasses containing saponins, which foam in the cow's rumen as a result of muscular agitation. It is suggested that in certain gastro-intestinal disturbances of man (such as hyperchlorhydria, gastritis, duodenal ulcer, colitis) antifoam A could be combined with various antacids, mucin, sodium lauryl sulphate, trisilicate and the like to obtain a more lasting and adhering effect. A number of suggested or already tested ways of using the silicones in the laboratory are listed and show the use that can be made of their unique properties to solve technical problems. In sterilization of instruments, the silicone fluids practically eliminate fire hazards because of their high flash-point; being practically non-volatile they can be used repeatedly with little loss; they prolong the life and precision of the instruments, thoroughly lubricating the moving parts and joints while ensuring sterilization; they reduce wear and, being water-repellent, eliminate corrosion and pitting caused by hot

<sup>1</sup> The Military Surgeon, May, 1950.

water or steam; they do not harm rubber. An interesting finding, yet to be followed, is that when silicone fluids are administered intravenously, a fine film of silicone forms over blood cells, and possibly also bacteria; speculation suggests therapeutic possibilities in this. It may be objected that most of the ideas brought forward by Barondes *et alii* are speculative, and this is perhaps true; but they have already investigated these silicone fluids quite considerably, and it is fair to suggest that the possible uses of these inert substances are rather different from over-enthusiastic indications offered for the latest therapeutic panacea. We shall probably see a good deal in the medical field of the development of silicones and other substances of their ilk.

#### THE MODE OF ACTION OF SALICYLATE.

A PREVIOUS CONSIDERATION in these columns<sup>1</sup> of the action of salicylates in the treatment of acute rheumatism was concluded with the comment that it seemed unlikely that the true worth and optimal application of salicylate therapy in acute rheumatism would become clear until the elusive essential action of the salicylates was uncovered. Particular reference was made at the time to the investigations of James Reid into the relationship of the plasma salicylate level to the presence of symptoms and to the erythrocyte sedimentation rate, and his work was noted for future reference. Reid, with R. D. Watson and D. H. Sproull,<sup>2</sup> has now developed his work further and appears to have come nearer an understanding of the action of the salicylates. This is important for a number of reasons, not the least being that to understand this might provide an important clue to understanding the acute rheumatic disease state, which is still obscure despite much investigation. All that is known, the present paper points out, is that acute rheumatic manifestations are promptly relieved by salicylate therapy and that the erythrocyte sedimentation rate, when taken as an index of rheumatic activity, returns to normal provided a high plasma salicylate level is maintained. The connexion between the relief of symptoms and the fall in erythrocyte sedimentation rate is still obscure, but discovery of the link between them might be of much value. Towards this, Reid's previous work provided two important leads: firstly, relief of acute rheumatic manifestations was accompanied by a fall in the carbon dioxide combining power of the plasma, suggesting some association with alteration in the acid-base balance of the body fluids; secondly, the fall in erythrocyte sedimentation rate was accompanied by diuresis, implying that changes in volume of the body fluids were also involved. With these in mind, Reid, Watson and Sproull investigated acid-base changes and volume changes in the body fluids of seven patients undergoing salicylate treatment for acute rheumatic fever, and obtained consistent results in each. It is not necessary to go into the details of their findings here, but it appears that salicylate has two important pharmacological actions: first, the stimulation of protein katabolism, which is ultimately responsible for the analgesic action of the drug and for the return of the erythrocyte sedimentation rate to normal; second, the induction of respiratory alkalosis by deep breathing. It is not clear which of these effects is primary. It is possible that salicylate stimulates vagal nerve endings and induces respiratory alkalosis by deep breathing, and that this, as a secondary effect, leads to increased protein katabolism by altering the chemical environment of body cells. On the other hand, stimulation of protein katabolism may be the primary action, and this may lead to vagal excitation by liberating nitrogenous organic compounds.

Whatever the mechanism, these two effects occur and result in, firstly, relief of the well-known manifestations of acute rheumatic fever and, secondly, a special clinical syndrome characterized by hyperpnœa, slowing of the

pulse rate, peripheral vasodilatation, nausea, vomiting, tinnitus, deafness and drowsiness. These symptoms appear while acute rheumatic manifestations are disappearing, and the promptness of relief from rheumatic symptoms and the severity of the special syndrome are both directly related to the plasma salicylate level; the higher this level, the quicker the disappearance of fever, tachycardia, joint pain and swelling, and the more intense the symptoms of the added salicylate syndrome. As might be expected from the known importance of protein in the regulation of body water, the breakdown in protein which is occurring is accompanied by striking changes in the three main reservoirs of body water. The general effect of salicylate, Reid, Watson and Sproull state, is to reduce the volume of total body water, but the water loss from cells, interstitial spaces and plasma is not uniform. Cellular water is the first to be reduced; this is later followed by a similar reduction in the water content of the other two compartments. During the reduction of the protein, potassium and water content of the body cells, joint pain and swelling are simultaneously relieved; the erythrocyte sedimentation rate shows no sign of falling at this stage, but later falls with reduction of the protein, sodium chloride and water content of the plasma. This striking correlation between the events associated with the relief of joint pain and swelling and a fall in the erythrocyte sedimentation rate suggests, it is pointed out, firstly that the choice of the erythrocyte sedimentation rate as an index of rheumatic activity is essentially sound, and secondly that cure of an attack of rheumatic fever with salicylate is a double process. In the first stage, joint pain and swelling are relieved by transfer of water from the affected joint tissue to the extracellular fluid; in the second the erythrocyte sedimentation rate returns to normal when the excess water is removed from the body, mainly by diuresis. The successful treatment of rheumatic fever will on this view depend on the smooth integration of these two processes.

Reid, Watson and Sproull then raise the question of how the therapeutic action of salicylate fits in with the well-known natural tendency for an attack of rheumatic fever to cure itself. The evidence suggests that this action differs in no way from the natural mechanism, since the biochemical changes in acute rheumatic fever are simply exaggerated by the administration of the drug; salicylate may do little more than speed up and possibly intensify the natural curative process. The evidence also seems to refute the view that salicylate does little more than act as an anodyne and throws some light on how it cures an attack of rheumatic fever. It would appear, however, as Coburn has previously suggested, that salicylate cures only existing acute rheumatic lesions and prevents the development of new ones, though it does not eradicate the cause. The drawbacks to salicylate therapy are, firstly, the fact that the therapeutic plasma level of the drug is very close to the toxic level, and secondly, that the plasma salicylate levels of patients who receive the same dose of drug vary greatly. It is still advisable to control dosage by plasma or urinary salicylate estimations. Clinical observation, mainly of the depth of respiration, may be enough to control dosage, but in this case careful watch should be kept for early signs of dehydration and for pulmonary oedema. Dehydration responds to oral administration of sodium bicarbonate and water; the treatment of pulmonary oedema is not so satisfactory, though venesection brings immediate benefit. Some light is also given on the problem of how long to continue dosage. This would seem desirable until the erythrocyte sedimentation rate falls to normal; as this fall appears to be associated with diuresis if sodium bicarbonate is given with sodium salicylate, it may be possible to decide the duration of dosage by continuing both drugs until diuresis develops. Thus this latest contribution to the study of the action of the salicylates suggests useful points in practical therapy, as well as advancing us towards an understanding of this well-established empirical treatment and perhaps with it of the disease process concerned in rheumatic fever.

<sup>1</sup> THE MEDICAL JOURNAL OF AUSTRALIA, March 19, 1949.

<sup>2</sup> The Quarterly Journal of Medicine, January, 1950.

## Abstracts from Medical Literature.

### DERMATOLOGY.

#### Glucose Tolerance Test in Generalized Pruritus.

H. ZOLL (*Archives of Dermatology and Syphilology*, March, 1950) suggests that the glucose tolerance test should be remembered in cases of generalized dermatitis for which no evident cause is found, especially when vulvar itching is complained of as well. He reports three cases in which the chief complaint was of a generalized pruritic, excoriated, lichenified dermatitis with normal results from routine tests of blood and urine. All the patients had been treated by physicians over varying periods with no relief until diabetes was determined as the cause and proper therapy instituted.

#### Acrodermatitis Pustulosa Perstans.

WILBERT SACHS AND HANS FIELD (*Archives of Dermatology and Syphilology*, February, 1950) state that Sachs in a previous article on so-called pustular psoriasis attempted to show that the disease was not related to psoriasis. Therefore it was suggested that the term pustular psoriasis be dropped and *acrodermatitis pustulosa perstans* be substituted. In the authors' experience *acrodermatitis pustulosa perstans* is often diagnosed as dermatophytosis, dermatophytids, mycotic eczema, contact dermatitis, pompholyx, nummular eczema or psoriasis, because pustules and vesicopustules seen in typical cases are often absent at the time of examination. The authors have observed a case in a child and report it in detail. The child had an erythematous scaly eruption on the palms with an occasional vesico-pustule. No focus of infection was demonstrable. Fungi were not found. The histological picture is described. In their comment the authors state that some cases resembling the one reported are cases of pustular bacterids and do clear on the removal of a focus of infection. A small number of cases resembling *acrodermatitis pustulosa perstans* are psoriasis of the palms and soles with secondary pustules and give the microscopic picture of psoriasis. The authors believe that the majority of cases are *acrodermatitis pustulosa perstans*. Large doses of penicillin failed to influence the primary disease.

#### Comparative Analysis of the Mucocutaneous-Ocular Syndromes.

H. M. ROBINSON AND F. R. McCURME (*Archives of Dermatology and Syphilology*, April, 1950) report 11 cases and review the literature on Behcet's disease, Reiter's disease, Stevens-Johnson disease and *ectodermosis erosiva pluriorificialis*. A table of the occurrence of the ocular lesions in the various so-called diseases shows that conjunctivitis, mild and purulent, may occur in all four groups under discussion. The occurrence of cutaneous lesions in the four syndromes reveals that lesions typical of *erythema multiforme* may be found in any of the symptom complexes, but that *erythema*

*nodosum* has been reported only in Reiter's disease and Behcet's disease. The comparative occurrence of oral lesions reveals that ulcerative stomatitis has been reported in all four syndromes. Joint signs are not reported in those cases of so-called Stevens-Johnson disease reviewed by the authors. Rheumatoid arthritis and arthralgia are the outstanding symptoms in those cases reported as Reiter's disease, but they have been reported in the other two syndromes as well. An analysis of the incidence of genital lesions reveals the common occurrence of vaginal or penile ulcers in all four of the syndromes. The present status of these syndromes reveals so many points of pronounced similarity that the conclusion is reached that they are all probably variants of *erythema multiforme exudativum*. The only possible exception to this statement is so-called Reiter's disease.

#### Distribution of Pityriasis Rosea.

J. DAVIS AND C. A. WALDRIF (*Archives of Dermatology and Syphilology*, May, 1950) state that modern text-books on dermatology follow the original concept of the distribution of the lesions of *pityriasis rosea*, stating that the location of a typical eruption is in the trunk and the extremities above the elbows and knees. Most authors state that the face is rarely affected. *Pityriasis rosea* has been known to occur on the face, scalp, neck, forearms and legs in some cases, but it has been taught that this distribution was atypical. The authors have analysed a group of cases of *pityriasis rosea* and compared them with two other large series, with special regard to lesions in the face, scalp, neck, forearms and legs. Of 157 cases observed at the New York Hospital, 50.9% had a distribution including one or more of the sites.

#### Pityriasis Rubra Pilaris.

R. R. KIERLAND AND M. H. KULWIN (*Archives of Dermatology and Syphilology*, June, 1950) state that there are still many gaps in knowledge of the clinical course, extracutaneous manifestations and pathogenesis of *pityriasis rubra pilaris*. They encountered, within a short time, two patients in whom a diagnosis of *pityriasis rubra pilaris* had been made, and both of whom presented clinical evidence of concomitant neuro-muscular disease. They felt that a review of a larger group of cases of *pityriasis rubra pilaris* might shed further light on this observation. They present a clinical analysis of 58 cases in which a diagnosis of *pityriasis rubra pilaris* was made at the Mayo Clinic. A questionnaire was sent to these patients asking: (i) how the condition of their skin compared with what it was at the time of their last visit; (ii) if there had been improvement, did they attribute it to any particular treatment they had received; (iii) had they experienced any muscle weakness such as difficulty in walking, rising or other forms. Thirty-one of the patients answered. In five of these patients the disease had developed in childhood. Of the patients who replied, all but four reported improvement in relation to cutaneous lesions or complete absence thereof. Opinion was equally divided amongst the patients as to the relative merits of vitamin A, topical applications and pyretotherapy. The

patients fall into two groups with regard to their age at the time of onset of their symptoms. One group first showed manifestations of the disease in infancy or childhood and the other in middle age. The authors consider that there are probably two distinct types of *pityriasis rubra pilaris*, the one a familial type, with onset in infancy or childhood, and the other an acquired type, occurring in middle age, with no genetic relation.

#### Autoeczematization.

F. E. CORMIA AND B. M. ESPLIN (*Archives of Dermatology and Syphilology*, June, 1950) state that autoeczematization consists in the development of scattered eczematous lesions complicating an acute eczematous process ordinarily of limited extent. Whitfield postulated that a person might become sensitized to split products of autogenous tissue proteins. Hampton and Cooke found that 30 of 33 patients with "allergic dermatitis" had skin reactions to human dander extract and, in addition, had skin-sensitizing antibodies in their serum. Patients with other allergic diseases, patients with dermatoses other than "allergic dermatitis" and normal controls reacted only exceptionally with this extract. The following test substances were used: (a) extract of scales (dander), (b) blood plasma, (c) suspension of blood leucocytes, (d) blister fluid. The patient was tested only with products of his own tissues. Autoeczematization is considered to be a true allergic reaction. The antigen responsible for the distal eczematous response is apparently a water-soluble fraction of epidermal cells. The development of immediate and delayed responses to intradermal injection of the antigen suggests that both fixed and circulating antibodies are present.

#### Urticaria Pigmentosa (Large Nodular Type).

R. R. KIERLAND AND O. C. STEGMAIER (*Archives of Dermatology and Syphilology*, July, 1950) state that urticaria of the large nodular type is rare enough to cause diagnostic problems, and may remain undiagnosed unless a specimen is removed for microscopic examination and stained with one of the basic aniline dyes. The occurrence of large tumours in *urticaria pigmentosa*, such as in the authors' case, is apparently unrecognized. The authors' patient was a male child, aged twenty-one months. Since birth, brown oval and round nodules had been present on the neck, extremities and trunk, which were occasionally pruritic. Bullae had been noted on these nodules, but they had begun to disappear at the age of one year. In the past four months the nodules had been decreasing in size. There were approximately 25 circumscribed, oval, brown to almost black, elevated, indurated plaques and nodules. The primary lesion consisted of a nodule from one to four centimetres in diameter and elevated one centimetre above the surrounding skin. Stroking the lesions caused no urtication. A biopsy specimen stained with polychrome methylene blue did not demonstrate the metachromatic granules of the mast cells, so the diagnosis of *urticaria pigmentosa* was dismissed. Months later recuts were stained by the Giemsa method, and the metachromatic granules typical of mast

cells were recognized. The authors state that Unna, in describing the childhood types of *urticaria pigmentosa*, stated that the lesions persisted to about the time of puberty and then almost always spontaneously disappeared. Most authorities claim that the nodules flatten out, usually by puberty, but that hyperpigmentation may remain indefinitely. *Urticaria pigmentosa* should be suspected if large pigmented nodules have been present since birth or shortly thereafter. The authors wish to focus attention on the function of mast cells. Holmgren and Wilander in 1937 pointed out that the meta-chromatic material of the mast cells of the liver capsule was identical with heparin. Inasmuch as *urticaria pigmentosa* is characterized by the presence of mast cells, the close association of heparin and mast cell granules is discussed. The finding of large amounts of heparin in mast cell tumours in dogs is noted, as well as the lack of anticoagulant effects *in vivo*. Heparin has also been found in anaphylactic shock in dogs.

#### Treatment of Lupus Erythematosus.

FRANCES PASCHER (*Archives of Dermatology and Syphilology*, June, 1950) states that Charpy found calciferol ineffective in *lupus erythematosus* and that the consensus of opinion is that penicillin therapy is of little or no value in either the acute or the chronic forms of the disease. The author's limited experience with streptomycin and aureomycin is neither encouraging nor conclusive. He states that gold preparations remain one of the best therapeutic agents for chronic discoid and chronic disseminated *lupus erythematosus*. The administration of gold should be controlled by repeated leucocyte counts and urine examinations.

### UROLOGY.

#### Uretero-Sigmoid Anastomosis.

J. J. CORDONNIER (*The Journal of Urology*, February, 1950) states that for many years carcinoma of the bladder has been a source of major concern to the urologist. At the author's hospital in St. Louis, a survey of 95 cases of carcinoma of the bladder, of grade 2 to 4, treated by conservative means, reveals that only 10 patients were alive after five years. Radiation therapy has proved inadequate, and electrocoagulation, while most useful in grade 1 papillary carcinoma (to invasion beyond the submucosa), offers nothing in the more malignant types. Partial resection of the bladder has always seemed surgically unsound to the author. He states that the bladder wall contains an extensive network of lymphatics, so that nothing short of total cystectomy with removal of all surrounding lymphatics can be of real value. But more than this is required if we are to achieve a reasonably low mortality and morbidity; we must find a method of ureteric transplantation which is safe and efficient. The voluminous literature on this difficult anastomosis testifies to the fact that to date no wholly satisfactory method has been found. The author has used in recent years a method differing in principle from those usually employed. It has proved so

successful in a small series of cases that it is deemed worthy of presentation. The points of novelty are that (i) the bowel is brought to the ureter, rather than the ureter to the bowel, (ii) an accurate mucosa-to-mucosa approximation is obtained, and (iii) the submucous tunnel is eliminated. It embodies the fundamental surgical principles of accurate approximation of the parts to be anastomosed, without undue tension on the suture line and with minimal disturbance of nerve and blood supply. The sigmoid colon is isolated by packing off the small intestine with the patient in an extreme Trendelenburg position, and the site of anastomosis on the right side ascertained by determining the portion of the gut which lies naturally over the ureter at the pelvic brim. Not too much of the ureter is stripped up, and it is not stripped cleanly so as to preserve its extrinsic blood supply. The upper segment of ureter is cut across at right angles, and the opening through the bowel mucosa is made just a little larger than the ureteric diameter. The primary line of anastomosis is made with four or five interrupted sutures of 0000 chromicized gut on an atraumatic needle, going through the whole wall of the ureter, but only through the small stab incision in the mucosa and submucosa of the bowel. The junction must be watertight, with no puckering in this very small anastomosis. A second row of sutures is placed between the bowel serosa and ureteric adventitia. It reinforces the watertightness of the anastomosis and slightly invaginates the stoma into the bowel, producing a papilla. The posterior peritoneum, where it was incised to display the ureter, is fixed over the anastomotic site. On the left side the method is just the same, but the ureter is brought out just below the transverse portion of the sigmoid colon. The method has been used in 27 cases without a single operative death. Even "poor risk" patients were operated on, and in only one case was a two-stage procedure carried out. In only one case did a major post-operative complication develop—an old man aged seventy-one years developed a faecal fistula. This was believed to be due to invasion of the rectum by the carcinoma of the bladder rather than to separation at the site of the anastomosis. This patient died of advanced carcinoma six months later. The late results were encouraging.

#### Neoplasm in Vesical Diverticulum.

S. PETKOVIC (*The Urologic and Cutaneous Review*, June, 1950) reports two cases of neoplasm in a bladder diverticulum, and states that 122 cases only have been reported up to the present. Aetiologically chronic irritation and chronic infection are concerned; the incidence of squamous-cell carcinoma in these cases is striking. In the clinical diagnosis hematuria is added to the preexisting symptoms of a diverticulum. Instrumental diagnosis (cystoscopy) and urographic diagnosis (cystography) may be more definite, but often the patient is operated on without suspicion of the growth within the sac (one-third of all cases). In treatment, the whole thickness of the sac must be removed (total diverticulectomy) and the operation must be a combined intravesical and extra-

vesical procedure. It may be necessary to remove the kidney on the same side if the ureter is implicated. Prognosis is poor and very few of the patients survive longer than two years.

#### Physiological Treatment of Urinary Stress Incontinence.

A. H. KROEL AND T. O. POWELL (*The Journal of Urology*, May, 1950) state that in the past, stress incontinence in the female has been considered a purely physical defect, and therefore the treatment has been chiefly surgical. However, the authors consider that the trouble is usually due to a functional neuro-muscular disturbance, and is very often responsive to a physiological type of treatment. They have noted that carefully taken histories frequently reveal evidence of "bladder weakness" prior to the trauma of childbearing, or of surgical operations, or of the degenerative process of the menopause. Normally, the function of the perineal muscles is developed during childhood or young womanhood, but in about 30% of women there is a lack of full development of the neuro-muscular function of the three lower diaphragms of the pelvis, namely, the external superficial perineal group, the muscles of the uro-genital diaphragm, and finally, most important of all, the levator ani group. Of the last group, so far as control of urination is concerned the pubo-coccygeus portion of this large muscle is the most important. There is a common "lack of awareness of function", and many women know nothing at all of the possibility there is of contracting these muscles. The physiological method of restoring function of the supportive and sphincteric muscles of the vesical outlet may be described as muscle reeducation, muscle training, active exercise or resisting exercise. The pubo-coccygeus, with its visceral extensions which are in close relationship with the vesical outlet, is the most important muscle that can be exercised vaginally. The patient can test for herself the degree of efficiency with which she can contract the perivaginal muscles by observing a dial manometer. This is connected with a cylindrical diaphragm, or vaginal resistance chamber. The method has been tried in approximately 300 cases of stress incontinence, both primarily and also after failure or comparative failure of plicating or other operations. In 70% of cases, muscular relaxation was the dominant factor, and it was fairly easy to restore good function by the physiological method. In about 30%, the neurogenic factor was dominant; however, there were no spastic or cord bladders included in this group. Improvement was slow in these cases, and the results varied with the accuracy of the technique and the diligence of the patients. In this group there is atrophy of the muscles from disease, and the purpose of resisting exercises is to overcome this factor. E. G. Jones has shown by X-ray studies that contraction of the pubo-coccygeus elevates the base of the bladder with the subject in the standing position. In contracting the vaginal and perivaginal muscles around the "perineometer" (resistance chamber) the patient is warned not to use extraneous muscles to cause movement of the needle.

## British Medical Association News.

### SCIENTIFIC.

A MEETING of the Victorian Branch of the British Medical Association was held on August 26, 1950, at the Glippsland Base Hospital, Sale. The meeting in the afternoon took the form of a series of clinical demonstrations by members of the honorary medical and surgical staffs of the hospital; this was reported in the issue of November 11, 1950.

#### Urological Problems in General Practice.

In the evening DR. J. S. PETERS read a paper entitled "Urological Problems in General Practice" (see page 954).

DR. N. F. PESCOTT asked what was the rational dosage of stilbestrol in carcinoma of the prostate.

Dr. Peters said that in large series of cases it had been shown that in the initial stages a high dosage of the drug was necessary; that dosage could later be reduced.

DR. D. I. FITZPATRICK asked whether prostatic massage was of value in chronic prostatitis.

Dr. Peters said that he believed that that form of treatment was overdone and that a common-sense régime was needed. Prostatic massage was usually not necessary more than once per week for one month, one per two weeks for one month, and then less often still.

DR. M. SALVARIS asked about the treatment of urethral caruncle, and whether incontinence of urine was commonly associated with prolapse.

Dr. Peters said that treatment relieved the symptoms of caruncle in a few days. Ordinary treatment for urinary infection was also necessary, but he thought that care had to be taken in the use of potassium citrate; it might be useless or even dangerous. He found that it was much better to use belladonna. He had found incontinence to be rare in cases of prolapse. The patients concerned actually had a urethral lesion—a stricture of the urethra—and that responded to dilatation best. Other cases were neurogenic in origin.

DR. H. L. ANDREWS asked Dr. Peters whether he could give some guidance in the differential diagnosis between carcinoma of the prostate and benign hypertrophy.

Dr. Peters, in reply, said that he thought that the age of the patient was important, carcinomata occurring in people over seventy years of age. Also, loss of weight and rectal examination could often be guides. Carcinomata always occurred in the posterior lobe of the prostate; that could be felt and was always very hard. The diagnostic proof, of course, was to be found in the serum acid phosphatase level, if it was found to be raised.

DR. G. J. B. BALDWIN asked for details of the dilatation of the bladder used in the treatment of interstitial cystitis.

Dr. Peters, in reply, explained that the dilatation was carried out first with the patient under anaesthesia until blood was noticed. That appeared to be the safe limit. Each day thereafter dilatation was performed until pain was experienced. Then silver nitrate was used and its concentration gradually increased. Some eighteen months later a recurrence could be expected, and the course would need to be repeated, once or possibly more often. Finally, the bladder might need to be forcibly dilated. If multiple ulcers were present, with intense pain, transplantation of the ureters would be necessary.

Dr. Pescott inquired as to the use of nicotinic acid in enuresis.

Dr. Peters, in reply, agreed that it had been used and might be useful in certain cases. Thyroid extract had also been advocated and found to be useful in certain cases of debilitation.

DR. L. P. WARR thought that it was always important to search first for an organic cause in a case of enuresis. He mentioned that in a recent issue of the *British Medical Journal* an apparatus had been described for use in the cure of enuresis, consisting of an electrical circuit which woke the patient as soon as any urine was passed.

DR. C. H. DICKSON described a similar apparatus designed in Adelaide which he believed had been very successful. Besides waking the patient by means of an electrical buzzer, it also gave a mild electric shock.

DR. R. SOUTHBY considered that enuresis was often a disheartening problem—once any organic basis was ruled out. He pointed out that the child who could pass normal amounts of urine at normal times, and yet be constantly

wet, was often suffering from "renal incontinence" and had an aberrant pole of renal tissue with an aberrant ureter opening directly into the urethra. In the non-organic cases, belladonna was sometimes dramatic in its effect. Dr. Southby could not believe that the cases were psychiatric problems, otherwise why did the patients respond to the drugs at all? He pointed out that punishment should never be used with the children affected. Finally he asked Dr. Peters what was the best treatment for recurrent meatal ulcer.

Dr. Peters, in reply, said that antiseptics might often clear up the condition and then recurrence would take place. In some cases the condition responded to meatotomy and in some it was found to be due to a Vincent's infection.

## Correspondence.

### A DISCLAIMER.

SIR: My attention has been directed to an error in the report of a special meeting of the Federal Council of the British Medical Association held in Sydney on September 23 and 24, 1950, and published on page 702 of your issue of November 4, 1950.

I did not make the statement published in the *Pharmacy News Bulletin* to which your report refers. The writer of your report has obviously confused that statement with one published several months later by a metropolitan newspaper. Though the newspaper attributed to me some criticism of the British Medical Association at the height of the controversy over the so-called "Page Plan", I did not make the statement. Nor was it ever supplied for publication by the Guild or the Pharmaceutical Public Relations Secretariat.

Yours, etc.,

ERIC SCOTT,

Federal President.

The Federated Pharmaceutical Service Guild of Australia,  
360 Swanston Street,  
Melbourne, C.I.  
November 27, 1950.

### INTERNATIONAL CONGRESS ON BLOOD TRANSFUSION.

SIR: Advice has been received, through the Australian Ambassador to France, from Dr. A. Tzanck, President of the International Society for Blood Transfusion, 53 Boulevard Diderot, Paris, 3e, that following the International Congress on Blood Transfusion held in Turin in 1948, the International Society for Blood Transfusion, created in Paris in 1938, received confirmation and was reorganized on a new basis, in keeping with the present world-wide extension of transfusion.

Its aim as defined by its statutes is to encourage the maximum development of a therapeutic, the capital role of which can no longer be contested. Since the most practical means appears to be the organization of international congresses, which make possible direct contacts between representatives of the different countries, the society obtained in April, 1949, the recognition of the Permanent Council for the Coordination of International Medical Congresses, under the auspices of UNESCO and WHO.

The next congress organized by the International Society for Blood Transfusion, the first since it has resumed its activities, will be held in Lisbon from July 16 to 22, 1951, as a result of the decision taken by the Standing International Committee at its meeting in Paris on August 1 and 2, 1950.

The following countries were represented at this committee by their most qualified technicians and leaders: Belgium, Italy, Norway, Netherlands, Canada, Denmark, United States, Spain, France, United Kingdom, Portugal, Sweden, Switzerland.

Should any Australian medical practitioner visiting Europe at the time of the congress be desirous of attending and be available to attend it, he should communicate with the Secretary, Department of External Affairs, Canberra.

Yours, etc.,

A. J. METCALFE,  
Director-General of Health.

Department of Health,  
Canberra,  
December 7, 1950.

## Post-Graduate Work.

### MELBOURNE PERMANENT POST-GRADUATE COMMITTEE.

#### MEDICAL POST-GRADUATE FACILITIES IN VICTORIA IN 1951.

THE following summary of medical post-graduate activities in Victoria in 1951 has been drawn up by the Melbourne Permanent Post-Graduate Committee in cooperation with other Victorian post-graduate organizations.

#### Clinical Post-Graduate Week.

The honorary medical staff of the Royal Melbourne Hospital will conduct a clinical post-graduate week, commencing on September 17, for three and a half days. Lectures and demonstrations will be given, designed for senior members of the medical profession and research workers, as well as for general practitioners. There will be no charge for attendance. After this the Melbourne Permanent Post-Graduate Committee has arranged for a symposium to be conducted for a day and a half on the subject of infectious diarrhoea.

#### Individual Post-Graduate Study.

With due notice the Melbourne Permanent Post-Graduate Committee can arrange attendance at general or special clinics, singly or as a series, to meet individual needs. Information concerning the visiting and operating days of members of the hospital staffs and daily operating lists are kept by the committee. Special arrangements for attendances at clinics can be made at the Austin Hospital, Heidelberg, for those interested in the medical or surgical treatment of tuberculosis, in the treatment of cancer by surgery or radium implantation, or in orthopaedic surgery.

#### Refresher Courses.

##### Gynaecology and Obstetrics Refresher Course.

A gynaecology and obstetrics refresher course will be conducted by the Melbourne Permanent Post-Graduate Committee from August 13 to 24, 1951, at the Women's Hospital, Carlton, and will consist of daily ward rounds and a series of demonstrations. Residence at the hospital during the period is advised and will be available. The fees will be £10 10s. for tuition and £3 10s. per week at the hospital.

##### Evening Refresher Lectures in Gynaecology and Obstetrics.

Evening refresher lectures in gynaecology and obstetrics will be conducted by the Victorian State Committee of the Royal College of Obstetricians and Gynaecologists on alternate Thursdays at 8.15 p.m. for six lectures. These will commence on July 5, 1951, and will be held at 122 Flinders Street, Melbourne. Fees will be £2 2s. per course or 10s. 6d. per lecture.

##### General Practitioners' Revision at Saint Vincent's Hospital.

Saint Vincent's Hospital invites general practitioners to visit the in-patient and out-patient, X-ray and pathology departments, the operating theatres and any other sections of interest, to watch the work of the hospital between May 31 and June 2, 1951. There will be no charge for attendance.

#### Anæsthesia.

Clinical work in anæsthesia can be arranged at the Royal Melbourne, the Alfred, the Children's, Prince Henry's and the Heidelberg Repatriation Hospitals. This clinical training is available at any time and for any duration, but post-graduate students will find it more satisfactory during the absence of students. Suitable times will be advised on application.

There are a limited number of salaried appointments for twelve months at the departments of anæsthesia of the Royal Melbourne and Alfred Hospitals. Application for these should be made direct to the hospitals.

Instruction in anæsthesia for thoracic surgery can be obtained by arrangement with Dr. R. Orton at the Alfred Hospital.

The Australian Society of Anæsthetists (British Medical Association) will arrange lectures during the year for medical officers interested in the subject, and especially for those preparing for examinations for Part II of the diploma in anæsthesia. The society also hopes to arrange lectures by Professor R. R. McIntosh, Nuffield Professor of Anæsthesia in the University of Oxford.

#### Psychological Medicine.

The Melbourne Permanent Post-Graduate Committee, in consultation with the Australasian Association of Psychiatrists, will conduct a full-time course in psychiatry, probably in September or October, 1951. This will be suitable for those studying for Part II examinations for the diploma in psychological medicine, and for psychiatrists generally. It will consist of about sixty lectures and demonstrations spread over one month.

#### Country Courses.

Throughout the year the Melbourne Permanent Post-Graduate Committee will conduct a series of country courses available to all medical practitioners. Applications for attendance at these should be made to the secretary of the appropriate subdivision of the British Medical Association, but these courses are distinct from the meetings conducted by the British Medical Association. The following dates and places have been arranged: February 17 and 18, at Ballarat; March 3 and 4, at Mooroopna; March 31, at Geelong; April 16, at Mooroopna; April 21 and 22, at Yallourn; April 28, in the South-West Subdivision; April 28 and 29, at Bendigo; June 16 and 17, at Mooroopna; August 25 and 26, at Mildura; October 6 and 7, at Horsham; November 17 and 18, at Hamilton.

In addition two single lectures will be given in the South-West Subdivision during the year, on February 17, at Terang, and on August 18, at Mortlake.

#### Course at Flinders Naval Depot.

By arrangement with the Royal Australian Navy, the Melbourne Permanent Post-Graduate Committee will conduct medical and surgical demonstrations at the Flinders Naval Depot on the second Wednesday of February, March, April, June and August through to December, and on the first Wednesday of May, at 2.30 p.m.

#### Special Lecturers.

##### Lecturers from Overseas.

**Professor Matthew Stewart.**—Professor Matthew Stewart, recently Professor of Pathology in the University of Leeds, will visit Melbourne during March and April, 1951. He will lecture for the Melbourne Permanent Post-Graduate Committee and will visit university departments.

**Professor R. R. McIntosh.**—Professor R. R. McIntosh, Nuffield Professor of Anæsthesia in the University of Oxford, will, it is hoped, lecture in Melbourne early in the year under arrangements made by the Australian Society of Anæsthetists (British Medical Association).

**Dr. William Pickles.**—Dr. William Pickles, of Yorkshire, England, will visit Victoria from April 16 to May 2, 1951, by arrangement with the Australian Post-Graduate Federation in Medicine. He will lecture in Melbourne for the Post-Graduate Committee on "Epidemiology in Country Practice" and "Research in General Practice", and will travel to country centres to repeat the first of these two lectures. Dr. Pickles is well known for his research work carried out in country practice in Yorkshire, and for his published works on the subjects mentioned. His programme will be approximately as follows: April 16, at Mooroopna; April 18, at Melbourne; April 21, at Yallourn; April 26, at Melbourne; April 28, in the South-West Subdivision of the British Medical Association.

**Sir William Gilliatt.**—Sir William Gilliatt will be in Melbourne to conduct the admission ceremony of the Fellows and Members of the Royal College of Obstetricians and Gynaecologists on Thursday, April 19, 1951, and it is expected that early in the following week he will give a lecture open to all members of the medical profession.

**Professor B. W. Windeyer and Dr. M. H. Jupe.**—Professor B. W. Windeyer and Dr. M. H. Jupe, examiners for the Fellowship of the Faculty of Radiologists, will visit Melbourne for about ten days in late May and early June, 1951, and will lecture for the College of Radiologists (Aust. and N.Z.).

**Professor D. M. Dunlop.**—Professor D. M. Dunlop, Professor of Therapeutics and Clinical Medicine in the University of Edinburgh, the Sims Commonwealth Travel-

ling Professor for 1951, will visit Australia and New Zealand from April to August, 1951, under the auspices of The Royal Australasian College of Physicians. Tentative dates for his visit to Melbourne are July 7 to 30.

#### *University of Melbourne Foundation Medical Lectures.*

**The Halford Oration.**—The seventeenth Halford Oration will be delivered by Dr. Leslie E. Hurley on "The Golden Age of Medicine" on April 3, 1951, at 8.15 p.m., in the Public Lecture Theatre, University of Melbourne.

**The Beattie-Smith Memorial Lectures on Insanity.**—The seventeenth Beattie-Smith Memorial Lectures on Insanity will be delivered by Dr. John F. J. Cade, of the Repatriation Mental Hospital, Bundoora, at 8.15 p.m., on May 7 and 14, in the Anatomy Theatre, University of Melbourne. His subject on May 7 will be "Research in Psychiatry", and on May 14 "The Problem of Schizophrenia".

**The Mathison Lecture.**—The fifth Mathison Lecture will be given by Sir Neil Hamilton Fairley on a date to be arranged, probably in October, 1951.

#### **Study for Higher Qualifications.**

The following courses suitable for candidates for higher qualifications will be conducted only if enrolments are sufficient in number in each case.

##### *Part I Courses.*

Courses in anatomy, physiology and pathology, suitable for candidates for Part I of the examinations for the M.D., M.S., D.O., D.L.O., D.G.O., D.D.R., D.T.R.E., D.A. and D.P.M., will be held on Monday and Wednesday afternoons, and courses in physics, suitable for candidates for the D.D.R. and D.T.R.E., on Thursday afternoons. These will be conducted by the Melbourne Permanent Post-Graduate Committee at the University of Melbourne, the classes commencing on February 26 and continuing until August. The course in pathology will not commence until March 5. Enrolments should be made at least two weeks before the course commences. The fee for Part I of each course is 30 guineas.

A course for candidates for the primary F.R.A.C.S. and F.R.C.S. examinations will be conducted by the Royal Australasian College of Surgeons, commencing about the middle of July and concluding about the end of October. The fee is 30 guineas and enrolments close on July 1.

##### *Part II Courses.*

**Medicine.**—From February to early in August, the Melbourne Permanent Post-Graduate Committee will conduct clinical lecture-demonstrations dealing with medical problems. There will be eight series, each under the direction of a senior specialist with various clinicians taking part. The demonstrations are available to all registered medical practitioners, but are designed primarily for those preparing for higher qualifications. Enrolments should be made at least two weeks before commencement of each series. The demonstrations will be given on two afternoons a week at different hospitals. The following courses have been arranged: Hematology, under the direction of Dr. John Bolton, at 2 p.m. on February 6 to 22. Neurology, under the direction of Dr. E. Graeme Robertson, at 4.30 p.m., from February 27 to March 15. Thoracic diseases, under the direction of Dr. Clive Flitts, at 2 p.m., from April 3 to 19. Paediatrics, under the direction of Dr. Mostyn L. Powell, at 2 p.m., from April 24 to May 10. Endocrinology, under the direction of Dr. K. D. Fairley, at 2 p.m., from May 15 to 31. Cardiology, under the direction of Dr. Frank J. Niall, at 2 p.m., from June 5 to 21. Gastro-intestinal disorders, under the direction of Dr. R. Andrew, at 2 p.m., from June 26 to July 10. Renal disorders, under the direction of Dr. Leslie Hurley, at 2 p.m., from July 17 to August 2. The fee will be three guineas in all cases except the series on gastro-intestinal disorders, for which it will be £2 12s. 6d.

**Surgery.**—A course for candidates for the final F.R.A.C.S. examination will be conducted by the Royal Australasian College of Surgeons, beginning early in March and concluding late in April, 1951. All graduates are eligible to attend. The fee for the course will be £10 10s.

**University Diploma Examinations.**—Candidates for the specialist diplomas, D.O., D.L.O., D.G.O., D.P.M., D.D.R., D.T.R.E. and D.A., are examined in the University of Melbourne. Prior to the examination and as the demand arises, courses will be provided by the Melbourne Permanent Post-Graduate Committee or a relevant specialist organization. Candidates for such courses should make inquiries as early as possible from the Post-Graduate Committee. It will not

be possible for a candidate to attend all classes for Parts I and II of a diploma during the one year, owing to the length and times of the training.

**F.F.R. Examination.**—Training for the F.F.R. examination, which commenced in 1950, will be continued in 1951 under the direction of the College of Radiologists (Aust. and N.Z.).

#### *Examinations.*

Information concerning the requirements for examinations for higher qualifications, including dates for commencement and closing dates for entries, should be obtained from the examining bodies themselves.

Copies of the "Handbook of the Faculty of Medicine", giving details of all higher degrees and diplomas at the University of Melbourne, are obtainable from the Melbourne University Press or the Melbourne Permanent Post-Graduate Committee, price one shilling. All inquiries concerning examination and eligibility should be addressed to the Registrar of the University, Carlton, N.3, Victoria. Candidates, if in Melbourne, will find it more convenient to make an appointment with the secretary of the faculty of medicine, scientific and medical branch of the Registrar's office, especially to apply for approval of experience and to have eligibility of candidature defined before entering for examinations.

The Royal Australasian College of Physicians and the Royal Australasian College of Surgeons should be consulted for information on the M.R.A.C.P. and F.R.A.C.S. (including F.R.C.S. primary) examinations.

The honorary secretary of the College of Radiologists (Aust. and N.Z.), Dr. Alan Colwell, Royal Prince Alfred Hospital, Camperdown, Sydney, or Dr. Peter Davis, 49 Spring Street, Melbourne (FA 8366), should be consulted for information on the F.F.R. examination.

The Melbourne Permanent Post-Graduate Committee does not take entries for or conduct examinations.

#### **Regular Meetings of Clinical Societies and Other Medical Bodies.**

Throughout the year regular clinical meetings are conducted. Attendance at these is by invitation, and details may be obtained from the respective hospitals or societies, or from the Melbourne Permanent Post-Graduate Committee.

#### **Overseas Post-Graduate Studies.**

The Director or the Assistant Directors of the Melbourne Permanent Post-Graduate Committee will be glad to advise graduates intending to proceed overseas and make available to them a considerable amount of material on this subject with advice from recently returned post-graduate students. Before departure, intending visitors may obtain information as to facilities available, and in most cases may have courses arranged through the corresponding organization in England.

#### **Visual Aids.**

A visual aids library of the department of clinical studies has been established as part of the scientific and medical branch of the Registrar's office at the University of Melbourne. The secretary is Mr. F. G. Elford. The facilities of this library are available to lecturers in the medicine, surgery and obstetrics and gynaecology sections of the department of clinical studies, in the clinical schools and in courses arranged by the Melbourne Permanent Post-Graduate Committee. Aids prepared for lecturers will be made by the visual aids centre free of charge if they are added to the library. Requests for visual aids should be made at the faculty of medicine office (F0484, extension 303). A catalogue will be available. Lecturers requiring information of a technical nature should consult Dr. W. E. King (medicine) or Dr. K. Burnside (surgery).

Films held in other States may also be borrowed through the mechanism of the Australian Post-Graduate Federation in Medicine, by communicating with the Melbourne Permanent Post-Graduate Committee, which has a catalogue of such films. A sound film projector is available from the British Medical Association, and projectors for strip films, film slides and glass slides are available from the Post-Graduate Committee for use by lecturers.

#### **Applications for Courses.**

Applications for courses, accompanied by any fees payable, should be made to the secretary of the organization by which the course is to be conducted.

**Registration.**

In Victoria applications for registration must be made to the Medical Board of Victoria, 295 Queen Street, Melbourne, a necessary qualification being the possession of a diploma or certificate from some recognized medical school to show completion of a course of at least five years' duration. The diploma or certificate must have been issued in the State or country which admits to practice unconditionally graduates of the University of Melbourne. At present, therefore, post-graduate students coming from Melbourne can be registered under existing legislation if their medical degrees were obtained in an Australian State, the United Kingdom or New Zealand, after a five years' course of study in one or more of these countries. Existing legislation as it affects post-graduate students, research workers and alien doctors is at present under review by the Medical Board. Attendance at a course mentioned in this syllabus does not necessarily require registration.

**The Royal Australasian College of Physicians.**

The Royal Australasian College of Physicians during 1951 will hold examinations for the M.R.A.C.P., one in March and April, and the other in September and October.

The annual meeting of the College will take place in Sydney on approximately April 11 to 14, and an ordinary meeting will be held in Perth on approximately October 15 to 20.

Inquiries concerning examinations and entries should be addressed to the honorary secretary of the College, 145 Macquarie Street, Sydney. Inquiries regarding post-graduate activities should be made through the honorary secretary of the Victorian State Committee, Dr. J. Eric Clarke, 12 Collins Street, Melbourne, telephone JM 1324.

**Royal Australasian College of Surgeons.**

The Royal Australasian College of Surgeons during 1951 will conduct courses and examinations for the primary and final Fellowship examinations.

The twenty-fourth annual general meeting will be held in Sydney from June 2 to 6 inclusive.

Entries for courses and examinations and inquiries regarding post-graduate activities should be directed to the secretary of the College, Mr. H. G. Wheeler, Spring Street, Melbourne, E.C.2, telephone JA 2002; cables and telegrams, "Colsurg, Melbourne".

**The Royal College of Obstetricians and Gynaecologists (Victorian State Committee).**

The Royal College of Obstetricians and Gynaecologists (Victorian State Committee) during 1951 will conduct refresher lectures in gynaecology and obstetrics and hold clinical meetings. Inquiries regarding post-graduate activities should be made through the secretary of the State Committee, Dr. W. J. Rawlings, 122 Flinders Street, Melbourne, telephone FA 8621, extension 52.

**Addresses of Other Organizations.**

The addresses of other organizations concerned in post-graduate activities are as follows:

The British Medical Association, Victorian Branch, 136 Albert Street, East Melbourne; telephone JM 1433. Central 1433; telegrams and cables, "Melmed", Melbourne.

The Royal Melbourne Hospital, Grattan Street, Parkville; telephone F 0266.

The Alfred Hospital, Commercial Road, Prahran; telephone LA 1251.

Saint Vincent's Hospital, Victoria Parade, Fitzroy; telephone JA 5191.

The Children's Hospital, Pelham Street, Carlton; telephone FJ 3171.

The Women's Hospital, Swanston Street, Carlton; telephone FJ 9441.

Prince Henry's Hospital, St. Kilda Road, Melbourne; telephone MX 3181.

**DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED DECEMBER 9, 1950.<sup>1</sup>**

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory. <sup>2</sup>	Australian Capital Territory.	Australia. <sup>3</sup>
Ankylostomiasis .. ..	..	..	..	..	..	..	..	..	..
Anthrax .. ..	..	..	..	..	..	..	..	..	..
Beriberi .. ..	..	..	..	..	..	..	..	..	..
Bilharziasis .. ..	..	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis ..	2(2)	..	2	..	..	..	..	..	4
Cholera .. ..	..	..	..	..	..	..	..	..	..
Coastal Fever(a) .. ..	..	..	..	..	..	..	..	..	..
Dengue .. ..	..	..	..	..	..	..	..	..	..
Diarrhoea (Infantile) .. ..	..	..	..	..	..	..	..	..	..
Diphtheria .. ..	7(4)	1(1)	6(6)	1	1(1)	..	..	..	16
Dysentery (Amoebic) .. ..	..	..	..	..	..	..	..	..	..
Dysentery (Bacillary) .. ..	..	..	2(1)	..	..	..	..	1	3
Encephalitis Lethargica .. ..	..	..	..	..	..	..	..	..	1
Erysipelas .. ..	..	..	..	2(1)	..	..	..	..	2
Filariasis .. ..	..	..	..	..	..	..	..	..	..
Helminthiasis .. ..	..	..	..	..	..	..	..	..	..
Hydatid .. ..	..	..	..	..	..	..	..	..	..
Influenza .. ..	..	..	..	..	..	..	..	..	..
Lead Poisoning .. ..	..	..	..	..	..	..	..	..	..
Leprosy .. ..	..	..	..	..	..	..	..	..	..
Malaria(b) .. ..	..	..	..	..	..	..	..	..	..
Measles .. ..	..	..	..	255(97)	..	..	..	..	255
Plague .. ..	..	..	..	..	..	..	..	..	..
Polio-myelitis .. ..	3(12)	3(1)	10	15(15)	..	8	..	..	73
Psittacosis .. ..	..	..	..	..	..	..	..	..	..
Puerperal Fever .. ..	..	..	..	2(2)	..	..	..	..	2
Rubella(c) .. ..	..	..	..	..	..	..	..	..	..
Scarlet Fever .. ..	1(12)	15(9)	21(18)	6(5)	..	8	..	..	94
Smallpox .. ..	..	..	..	..	..	..	..	..	..
Tetanus .. ..	..	..	..	..	..	..	..	..	..
Trachoma .. ..	..	..	..	..	..	..	..	..	..
Tuberculosis(d) .. ..	31(21)	18(7)	6(2)	5(5)	13(8)	5	..	1	79
Typhoid Fever(e) .. ..	..	1	..	..	..	..	..	..	1
Typhus (Endemic)(f) .. ..	2	..	2	..	..	..	..	..	4
Undulant Fever .. ..	..	..	..	..	..	..	..	..	..
Well's Disease(g) .. ..	..	..	2	..	..	..	..	..	2
Whooping Cough .. ..	..	..	..	10(2)	..	..	..	..	10
Yellow Fever .. ..	..	..	..	..	..	..	..	..	..

<sup>1</sup> The form of this table is taken from the *Official Year Book of the Commonwealth of Australia*, Number 37, 1946-1947. Figures in parentheses are those for the metropolitan area.

<sup>2</sup> Figures not available.

<sup>3</sup> Figures incomplete owing to absence of returns from the Northern Territory.

<sup>4</sup> Not notifiable.

(a) Includes Moxman and Sarina fevers. (b) Mainly relapses among servicemen infected overseas. (c) Notifiable disease in Queensland in females aged over fourteen years. (d) Includes all forms. (e) Includes enteric fever, paratyphoid fevers and other *Salmonella* infections. (f) Includes scrub, murine and tick typhus. (g) Includes leptospirosis, Weil's and para-Weil's disease.

Eye, Ear, Nose and Throat Hospital, Victoria Parade, East Melbourne; telephone JM 1820.

Mental Hospital, Royal Park, Melbourne; telephone FW 2177.

Austin Hospital, Heidelberg; telephone JL 1201.

Infectious Diseases Hospital, Fairfield; telephone JW 1122.

Repatriation General Hospital, Heidelberg; telephone JX 0211.

## Commonwealth Scientific and Industrial Research Organization.

### TRANSLATIONS.

THE following translations have been prepared by the Commonwealth Scientific and Industrial Research Organization Information Service. Photocopies may be obtained on loan by application to the Officer-in-Charge, Commonwealth Scientific and Industrial Research Organization Information Service, 314 Albert Street, East Melbourne, C.2, Victoria.

1288: Caspersoon, T., 1939. "The Part of Desoxyribonucleic Acids in Cell Division" (*"Über die Rolle der Desoxyribosenukleinsäure bei der Zellteilung"*), *Chromosoma*, I(1), 147-186.

1230: Dergunov, E. P., 1948. "Formation of Complexes Between Fluorides of Alkali Metals and Fluorides of Group III Metals" (*"Kompleksobrazovanie mezdu floridami shchelochnykh metallov i metallov tret'ei gruppy"*), *Doklady Akademii Nauk S.S.S.R.*, LX(7), 1185-1188.

1198: Goedewaagen, Dr. M. A. J., 1949. "A Few Aspects Concerning the Method of Root Investigation in Arable and Pasture Land" (*"Een en ander over de methodiek van het wortelonderzoek op Bouw- en Grasland"*), *Maanblad voor de Landbouwvoorlichtingsdienst*, 194-200.

1244: Gold'man, I., 1947. "The Kinetics of Exothermic Reactions Proceeding under Adiabatic Conditions" (*"O kinetike ekzotermicheskikh reaktsii protekayushchikh v adiabaticheskikh usloviyakh"*), *Zhurnal Fizicheskoi Khimii*, XXI(11), 1293-1298.

1241: Gonfalonieri, A., 1950. "The Industry of Hemp, Flax and Similar Fibres in Italy" (*"L'industrie italienne du chanvre du lin et des fibres similaires"*), *L'Industrie textile*, LXVII(759), 55-56.

1237: Lyubashenko, S., 1949. "Vaccine and Serum Prophylaxis and Therapy in Leptospirosis of Animals" (*"Vaktsinoprofilaktika seroprofilaktika i seroterapiya leptospiroza shivotnykh"*), *Veterinariya*, (7), 6-9.

1215: Rubinstein, D., and Uspenskaja, V., 1934. "The Isoelectric Point of the Plant Plasma Membrane" (*"Über den isoelektrischen Punkt der pflanzlichen Plasmahaut"*), *Protoplasma*, XXI, 191-225.

1239: Sundman, J., Saarnio, J., and Gustafsson, C., 1950. "Paperchromatographic Investigations of the Carbohydrate Composition of Some Wood Species" (*"Papperskromatografisk undersökning av kolhydratsammansättningen i några träslag"*), *Meddelanden Fran Industrins Centrallaboratorium*, Number 74.

1278: Vainshtein, B., and Pinsker, Z., 1950. "Determination of Position of Hydrogen in the Crystalline Lattice of Paraffin Wax" (*"Opredelenie polozheniya vodoroda v kristallicheskoi reshetki paraffin"*), *Doklady Akademii Nauk S.S.S.R.*, LXXII(1), 53-56.

## Obituary.

EFFIE STILWELL.

We regret to announce the death of Dr. Effie Stilwell, which occurred on December 10, 1950, at Melbourne.

ARTHUR NORMAN MCARTHUR.

We regret to announce the death of Dr. Arthur Norman McArthur, which occurred on December 11, 1950, at Camperdown, Victoria.

## Nominations and Elections.

THE undermentioned has applied for election as a member of the New South Wales Branch of the British Medical Association:

Kinsella, Edward Louis, M.B., 1947 (Univ. Sydney), 174 Brooks Street, Bar Beach.

## Diary for the Month.

JAN. 3.—Western Australian Branch, B.M.A.: Council Meeting.  
JAN. 9.—New South Wales Branch, B.M.A.: Council Quarterly.  
JAN. 11.—South Australian Branch, B.M.A.: Council Meeting.  
JAN. 12.—Queensland Branch, B.M.A.: Council Meeting.  
JAN. 16.—New South Wales Branch, B.M.A.: Executive and Finance Committee.  
JAN. 18.—Victorian Branch, B.M.A.: Executive Meeting.  
JAN. 23.—New South Wales Branch, B.M.A.: Medical Politics Committee.  
JAN. 24.—Victorian Branch, B.M.A.: Council Meeting.  
JAN. 26.—Queensland Branch, B.M.A.: Council Meeting.

## Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

**New South Wales Branch** (Medical Secretary, 135 Macquarie Street, Sydney)—All contract practice appointments in New South Wales.

**Victorian Branch** (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federal Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

**Queensland Branch** (Honorary Secretary, B.M.A. House, 225 Wickham Terrace, Brisbane, B17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

**South Australian Branch** (Honorary Secretary, 178 North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

**Western Australian Branch** (Honorary Secretary, 205 Saint George's Terrace, Perth): Norseman Hospital; all Contract Practice appointments in Western Australia. All government appointments with the exception of those of the Department of Public Health.

## Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW2651-2.)

Members and subscribers are requested to notify the Manager, THE MEDICAL JOURNAL OF AUSTRALIA, Seamer Street, Glebe, New South Wales, without delay, of any irregularity in the delivery of this journal. The management cannot accept any responsibility or recognize any claim arising out of non-receipt of journals unless such notification is received within one month.

**SUBSCRIPTION RATES.**—Medical students and others not receiving THE MEDICAL JOURNAL OF AUSTRALIA in virtue of membership of the Branches of the British Medical Association in the Commonwealth can become subscribers to the journal by applying to the Manager or through the usual agents and book-sellers. Subscriptions can commence at the beginning of any quarter and are renewable on December 31. The rate is £3 per annum within Australia and the British Commonwealth of Nations, and £4 10s. per annum within America and foreign countries, payable in advance.



# THE MEDICAL JOURNAL OF AUSTRALIA

UNIVERSITY  
OF MICHIGAN

FEB 27 1951

MEDICAL  
LIBRARY

VOL. II.—37TH YEAR.

SYDNEY, SATURDAY, DECEMBER 30, 1950.

No. 27.

## Notice to the Medical Profession

### **CRYSTALLINE PENICILLIN G (Potassium)** (COMMONWEALTH)

**is available in the undermentioned packs:**

1 bottle holding 100,000 units,	1/8.	Set of 5 × 100,000 units,	8/4.
1 " " 200,000 "	2/6.	" " 5 × 200,000 "	12/6.
1 " " 500,000 "	4/6.	" " 5 × 500,000 "	22/6
1 " " 1,000,000 "	8/6.	" " 5 × 1,000,000 "	42/6

Crystalline Penicillin G (Potassium) is widely used throughout the world, particularly in North America.

There are no advantages apparent in employing the sodium salt in place of the potassium salt. Both preparations are for all practical purposes to be regarded as interchangeable.

Supplies can be obtained direct from

**THE COMMONWEALTH SERUM LABORATORIES**  
PARKVILLE, N.2., VICTORIA

Stocks are also held at the addresses listed below:

NEW SOUTH WALES: Deputy Director of Health, 39 York Street, Sydney.  
VICTORIA: Deputy Director of Health, 113 Queen Street, Melbourne.  
QUEENSLAND: Deputy Director of Health, Anzac Square, Adelaide Street, Brisbane.  
SOUTH AUSTRALIA: Deputy Director of Health, 41-47 King William Street, Adelaide.  
WESTERN AUSTRALIA: Deputy Director of Health, 4th Floor, G.P.O., Perth.  
TASMANIA: Senior Commonwealth Medical Officer, Howick Street, Launceston.

**THE PURE VITAMIN B<sub>12</sub>**  
**NOW AVAILABLE FOR**  
**ORAL THERAPY,**  
*as well as for injection as previously announced*

**ANDREW'S VIBION TABLETS**

of 10 microgram strength. The new growth-promoting agent for children with retarded development.

● Packed in bottles of 50 tablets of 10 micrograms.

**ANDREW'S VIBION INJECTIONS**

with the increased strength of 20 MICROGRAMS. A most powerful hematopoietic agent for all cases of macrocytic anaemia, especially against the nervous complications of pernicious anaemia.

● Packed in boxes of 6 ampoules of 20 micrograms.

Further information on request from the manufacturers

**ANDREW'S LABORATORIES • SYDNEY**  
15 HAMILTON STREET

